

Quelle

**TECHNISCHER
KUNDENDIENST**

Best.-Nr.:

Technische Unterlage

067.994.4

067.993.6

DOLBY SURROUND PRO LOGIC

© Center-Box

1000 Watt

979,-

universum.

**© Surround
Boxen**

- 18 Senderspeicher
- 14-Band-Graphic-Equalizer
- Doppel-Cassettendeck
- 75 Ohm Antennen-/Kabelanschluß

105.792.6

Best.Nr.: 0679944/01

Ger.Bez.: UNIV. STEREO-TURM

GKz: G GERAET

WGT: 659 KOMPLETTE STEREO-TUERME

KD-Sektor: R RUNDFUNK

BaumNr.: 00 KEIN DIAGNOSEBAUM VORHANDEN

Klassierung: STG STEREOG., TUNER, VERST., STEUERG

IFW-FehlerGru.: 205 RDF., VERST., TB., PHONO, CD, CB

Type/Privileg/Universum.Nr MODELL 3030

Beschreibung

VK-Preis: 999.00

Serviceart: 01 QUELLE-TKD

Garantie fuer Kunden 06 Monate

Sondervereinbarungen: 0 SIEHE SERVICEART

Garantiereparatur 9999999 QUELLE

KAT. 954

DATUM

09.08.95

SEITEN 040

Quelle Schickedanz AG & Co.

Kundendienstzentraleitung Duisburger Str. 57, 90451 Nürnberg

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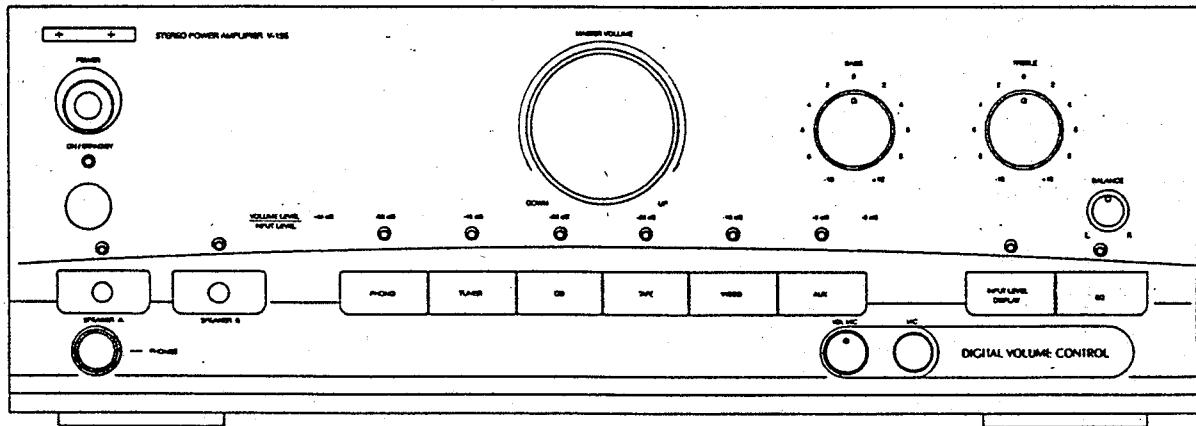
Nachdruck nicht gestattet
Änderungen vorbehalten

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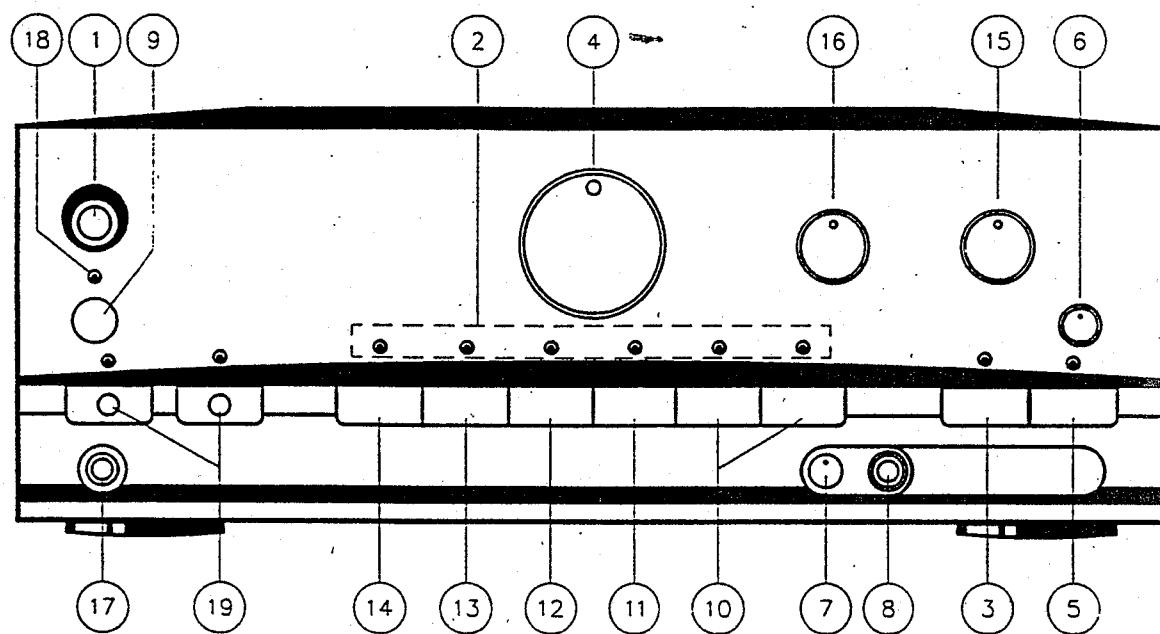
SERVICE MANUAL

STEREO POWER AMPLIFIER

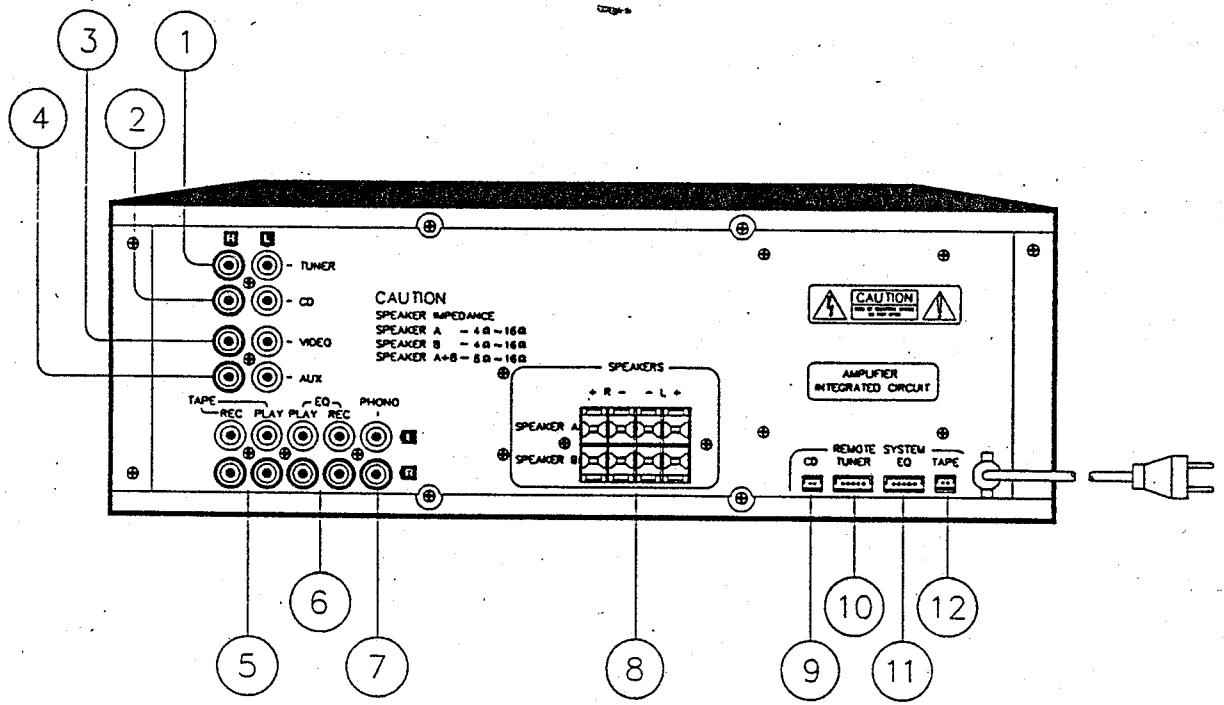


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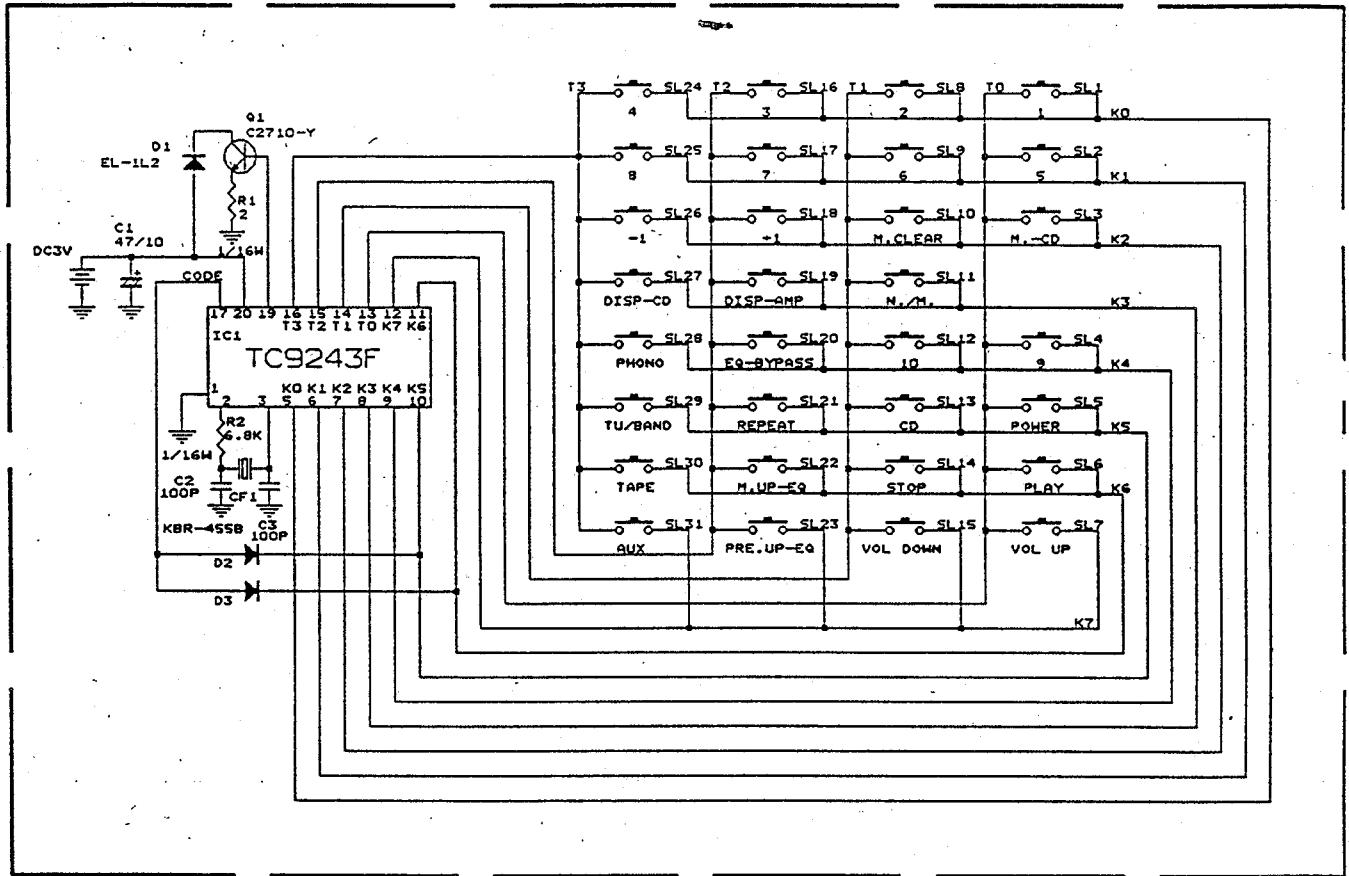
CONTROL FUNCTIONS



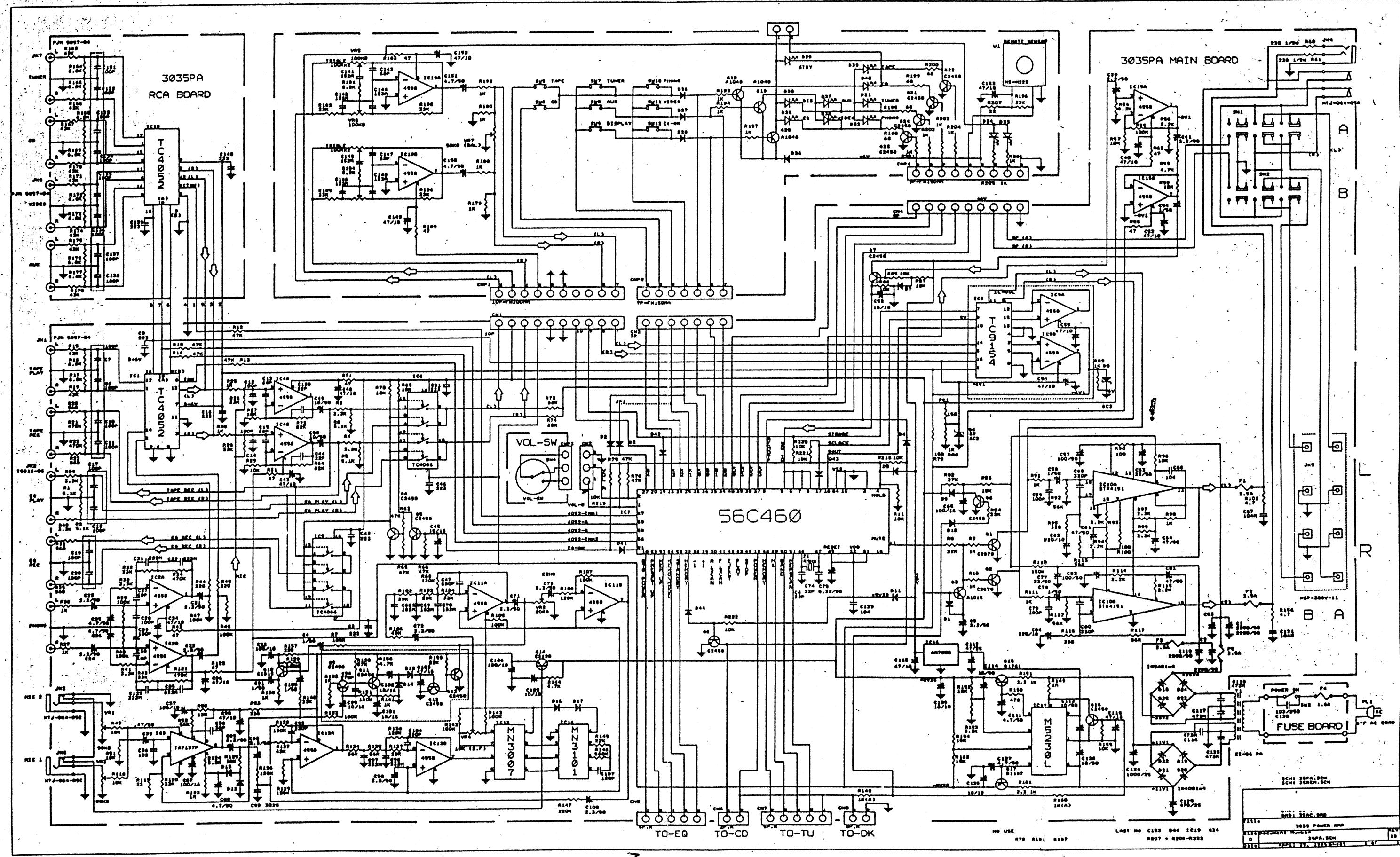
1. POWER SWITCH	11. TAPE
2. 3 FUNCTIONS LED DISPLAY INDICATORS	12. CD
3. INPUT LEVEL DISPLAY	13. TUNER
4. ARTIFICIAL INTELLIGENT MASTER VOLUME	14. PHONO
5. EQUALIZER SWITCH	15. TONE CONTROL TREBLE VOLUME
6. BALANCE VOLUME (L / R)	16. TONE CONTROL BASS VOLUME
7. MIC LEVEL VOLUME	17. HEAD PHONE JACK
8. MIC JACK	18. REMOTE STANDBY INDICATOR
9. REMOTE SENSOR	19. SPEAKER SELECTION
10. VIDEO AUX	



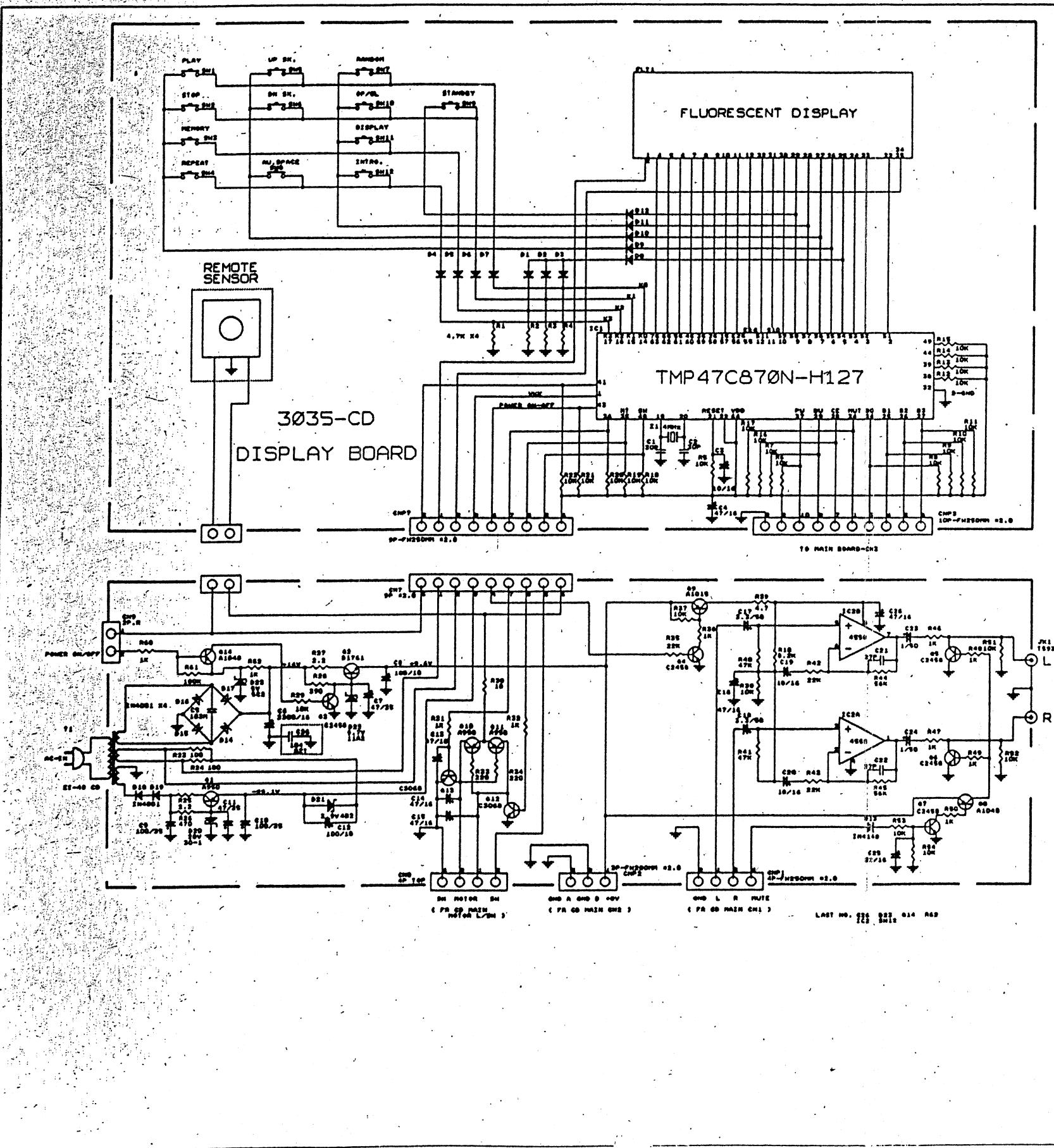
1. TUNER TERMINAL	7. PHONO TERMINAL
2. CD TERMINAL	8. SPEAKER TERMINAL
3. VIDEO TERMINAL	9. CD REMOTE SYSTEM CONNECTOR
4. AUX TERMINAL	10. TUNER REMOTE SYSTEM CONNECTOR
5. TAPE (REC / PLAY) IN / OUT PUT TERMINAL	11. EQ REMOTE SYSTEM CONNECTOR
6. EQ (REC / PLAY) IN / OUT PUT TERMINAL	12. TAPE REMOTE SYSTEM CONNECTOR

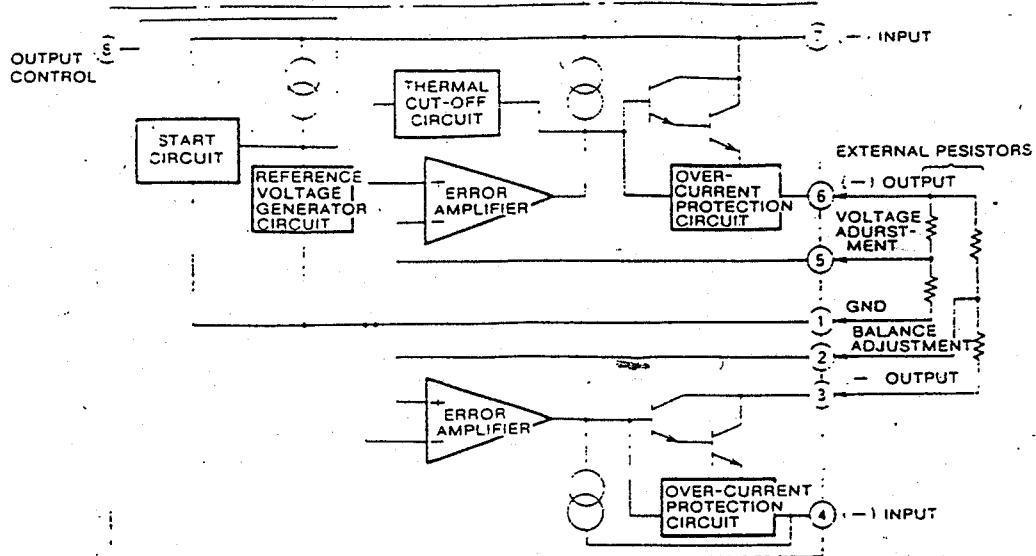


SCHEMATIC DIAGRAM

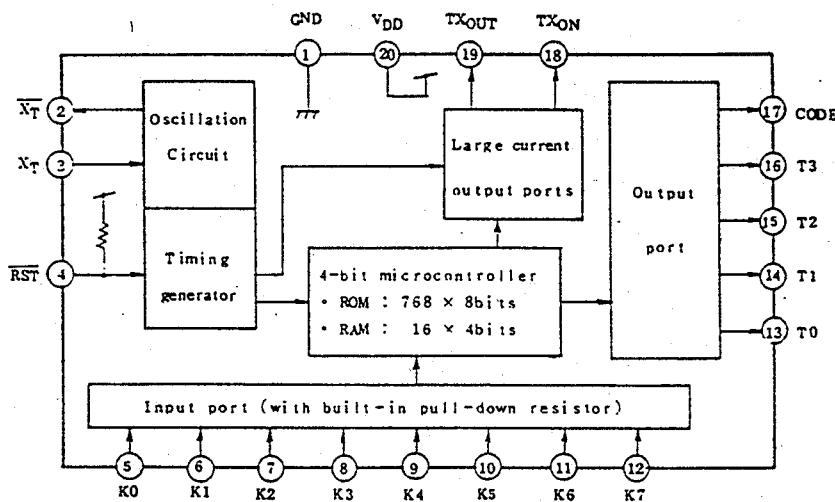


SCHEMATIC DIAGRAM

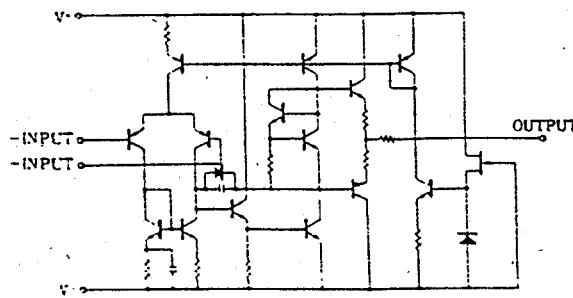




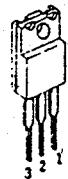
M5230L



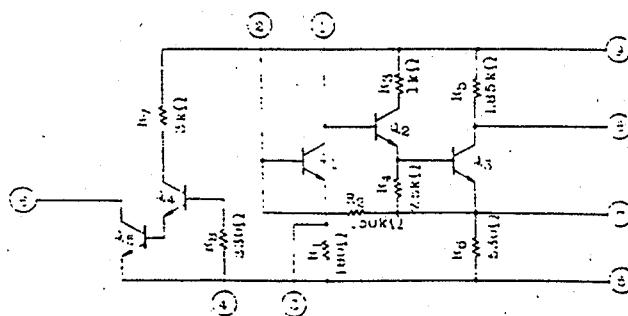
TC9243P/F



NJM4558

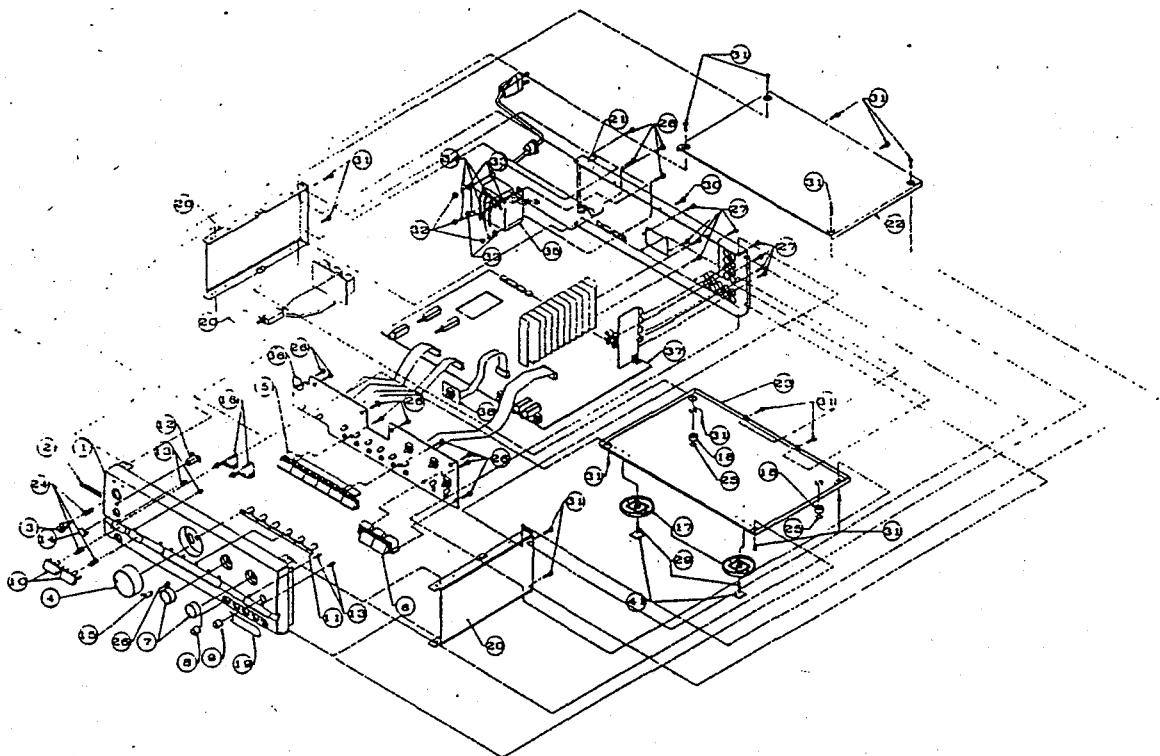


AN7806



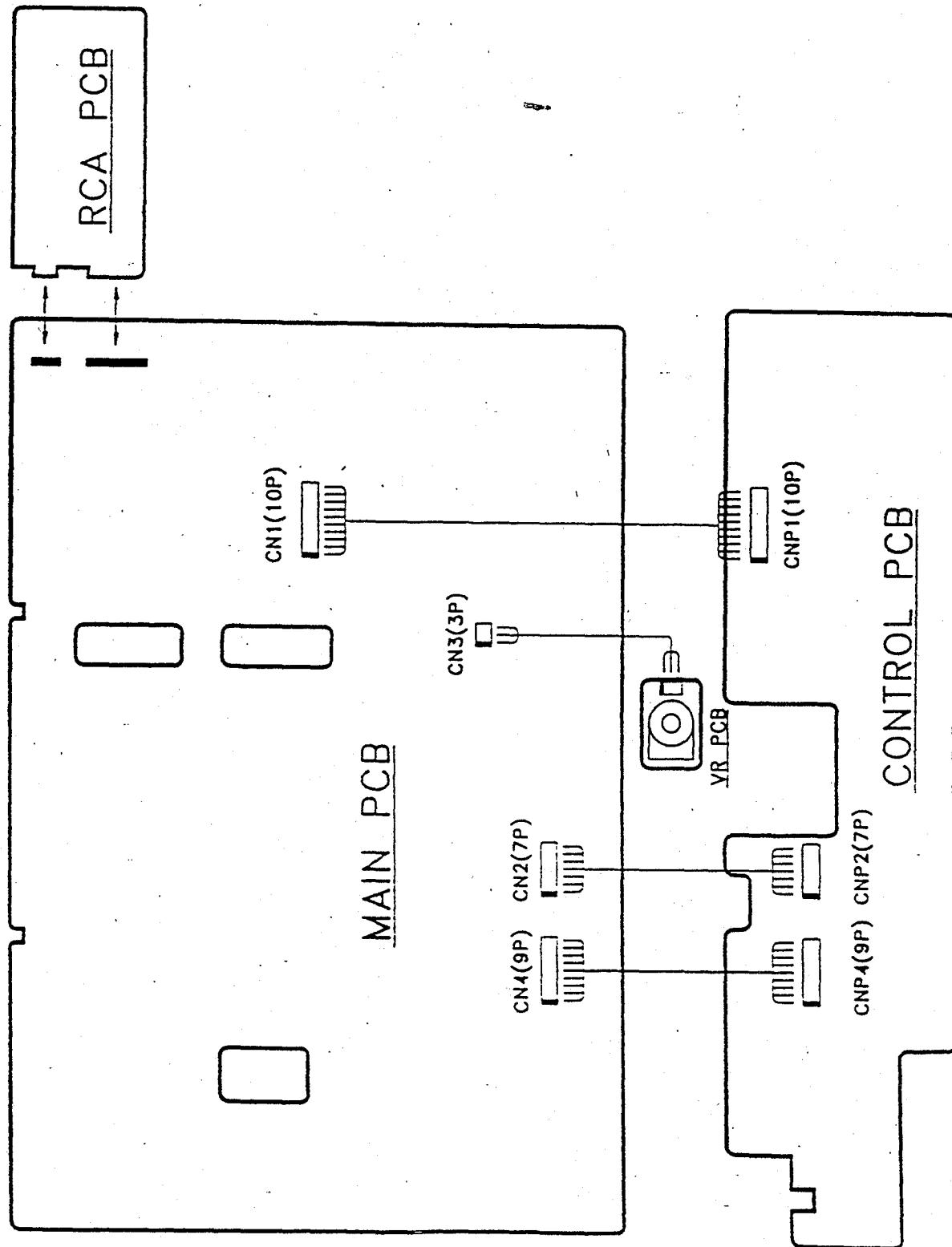
TA7137P/P-ST

EXPLODED VIEW



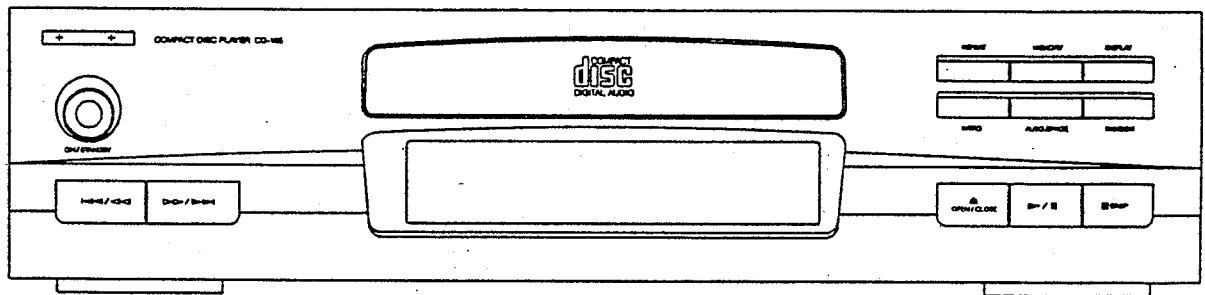
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	7035101103	AMP PANEL (V-155) (NO KARA)	1	21	8335110106	BACK COVER (AMP) (NO AC OUTLET)	1
2		BRANDNAME	1	22	6132110000	TOP COVER (AMP)	1
3	7335101000	AMP POWER KNOB	1	23	6235110000	BOTTOM COVER (AMP)	1
4	7335103000	AMP VOL KNOB	1	24	5235101000	AMP SPK SPRING (POWER, SPK2)	3
5	7335104103	AMP FUNCTION KNOB	1	25		RUBBER FOOT 12 X 12 X 2.0MM	4
6	7335105106	COMMON KNOB (AMP)	1			SCREW	
7	7335106000	AMP BASS & TREBLE KNOB	2	26		PA 2.6 X 8 (M3) (2683A)	11
8	7335107000	AMP MIC KNOB	1	27		PA 3 X 8	7
9	7335108000	AMP BAL & CASS REC KNOB	1	28	5601351001	BM 3.5 X 10 (FOR TRANSFORMER)	4
10	7335100000	AMP PUSH-KNOB (SPK)	2	29		BTB 3 X 4.5	2
11	7435101000	AMP FUNCTION KNOB LENS (TRANSPARENT)	1	30	5602300602	BTB 3 X 6 BC	8
12	7435102000	AMP STANDBY LED LENS (TRANSPARENT)	1	31		BTB 3 X 6 (BLACK) (FOR CHASSIS)	16
13	7435103000	AMP SPK DISPLAY KNOB LED LENS (TRANSPARENT)	4	32	5710350253	NUT : M3.5 (FOR TRANSFORMER)	4
14	7435104000	AMP SENSOR LENS (PURPLE)	1	33	5432109000	METAL WASHER D3.5 X 8 X 1MM	4
15	7435105000	AMP VOL KNOB LENS (TRANSPARENT)	1	34	5432106000	SPRING WASHER 3.5	4
16	7935102000	AMP SPK SW-STICK	2	35		TRANSFORMER	1
17	7935102201	FRONT FOOT (GOLDEN)	2	36		CONTROL PCB	1
18	7935105000	REAR FOOT	2	37		MAIN PCB	1
19	7635101102	MIC CUTSHEET (DIGITAL VOLUME CONTROL)	1	38		VOL PCB	1
20	6435110000	SIDE COVER(DEC & AMP)	2				

WIRING DIAGRAM



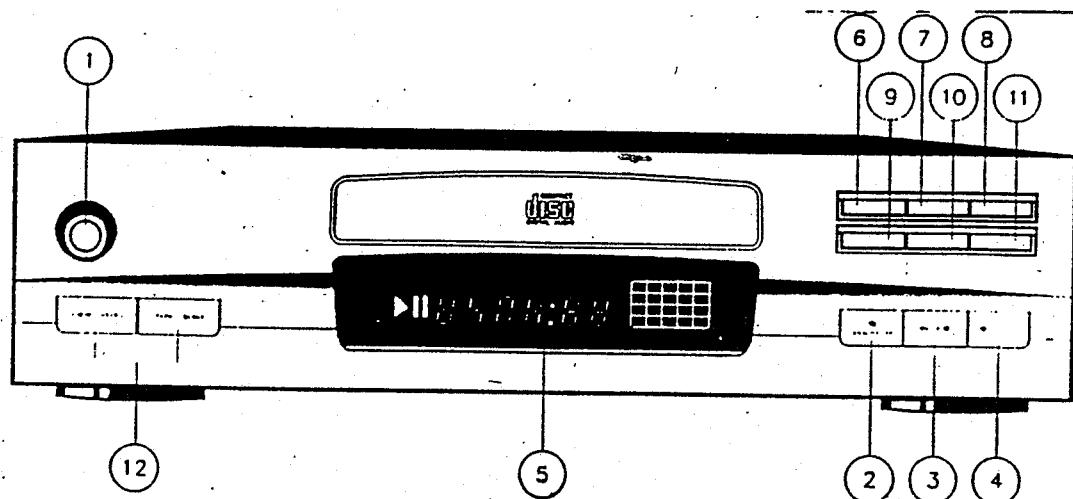
SERVICE MANUAL

COMPACT DISC PLAYER



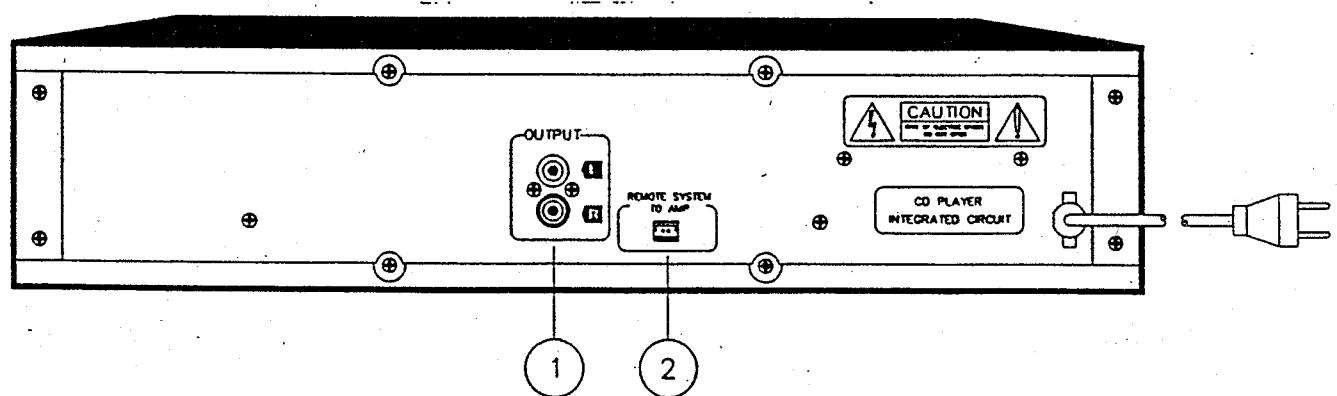
CD - 155

CONTROL FUNCTIONS



1. ON / STANDBY SWITCH
2. OPEN / CLOSE
3. PLAY / PAUSE
4. STOP
5. MUSICAL CALENDAR
6. PEPEAT

7. MEMORY
8. DISPLAY
9. INTRO
10. AUTO SPACE
11. RANDOM
12. FastFWD, FastBWD



1. OUTPUT L/R TERMINAL

2. CD TO AMP REMOTE SYSTEM CONNECTOR

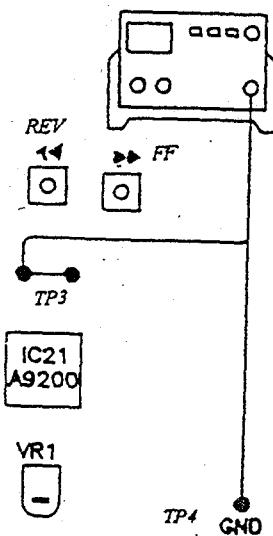
SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields etc..

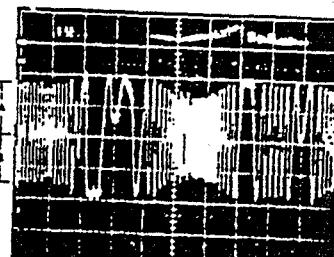
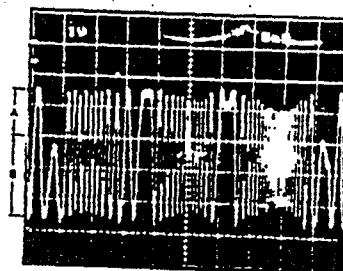
MEASUREMENTS AND ADJUSTMENTS

TRACKING BALANCE ADJUSTMENT

1. Position the baseline trace of the oscilloscope to the center horizontal graticule line oscilloscope setting:
 VOLT 1V/Div
 SWEEP 2m/sec
 INPUT COUPLING DC
2. Turn on the power switch and play the track 1 of test disc.
3. Connect the oscilloscope to TP3 (See Fig 3-1) and TP4 (Gnd)
4. Press the skip FF or REV using oscilloscope, adjust the VR1 so that A=B (See Fig 3-2)



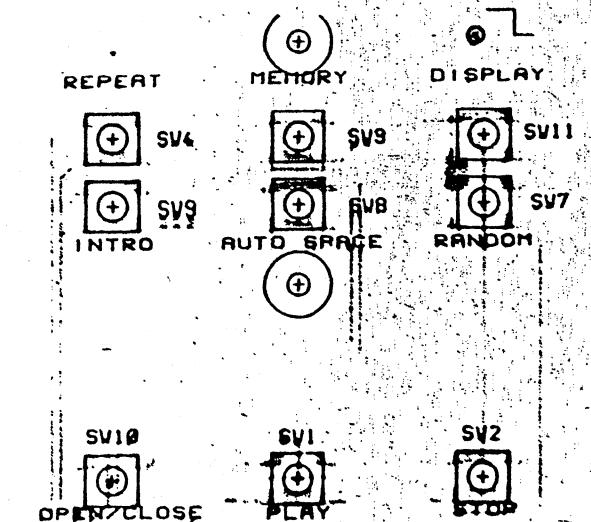
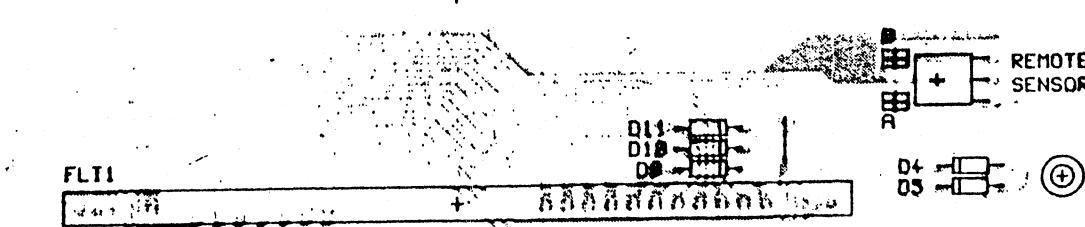
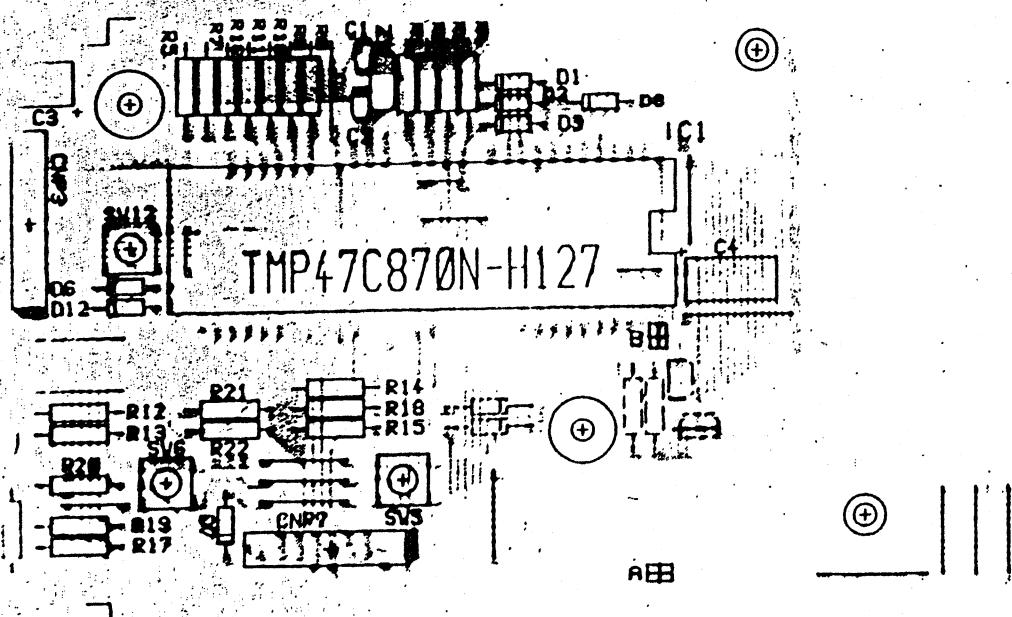
(Fig 3-1)



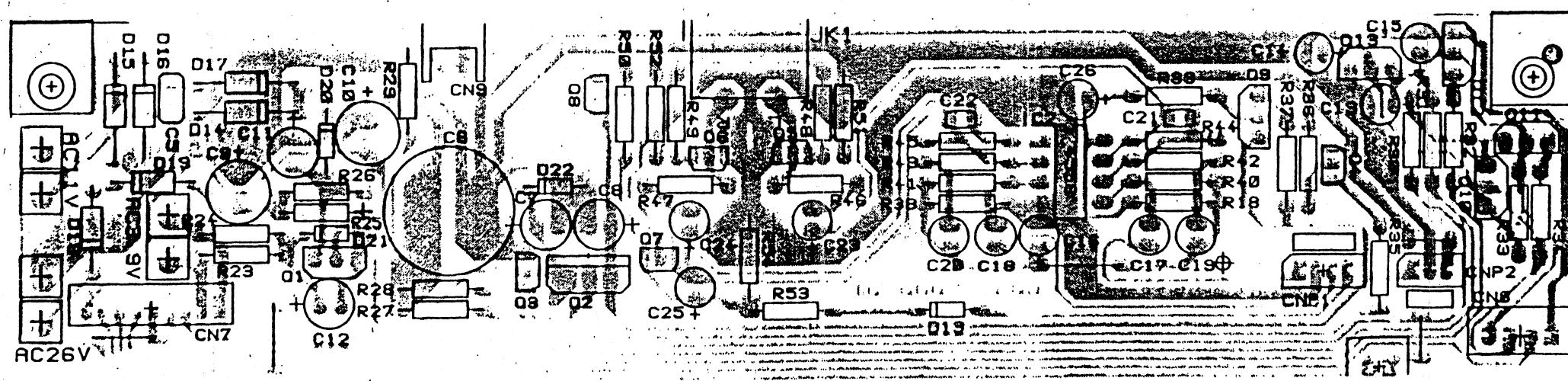
(Fig 3-2)

5. When the display press the play button again and repeat procedure (4).

PRINTED CIRCUIT BOARDS DIAGRAM

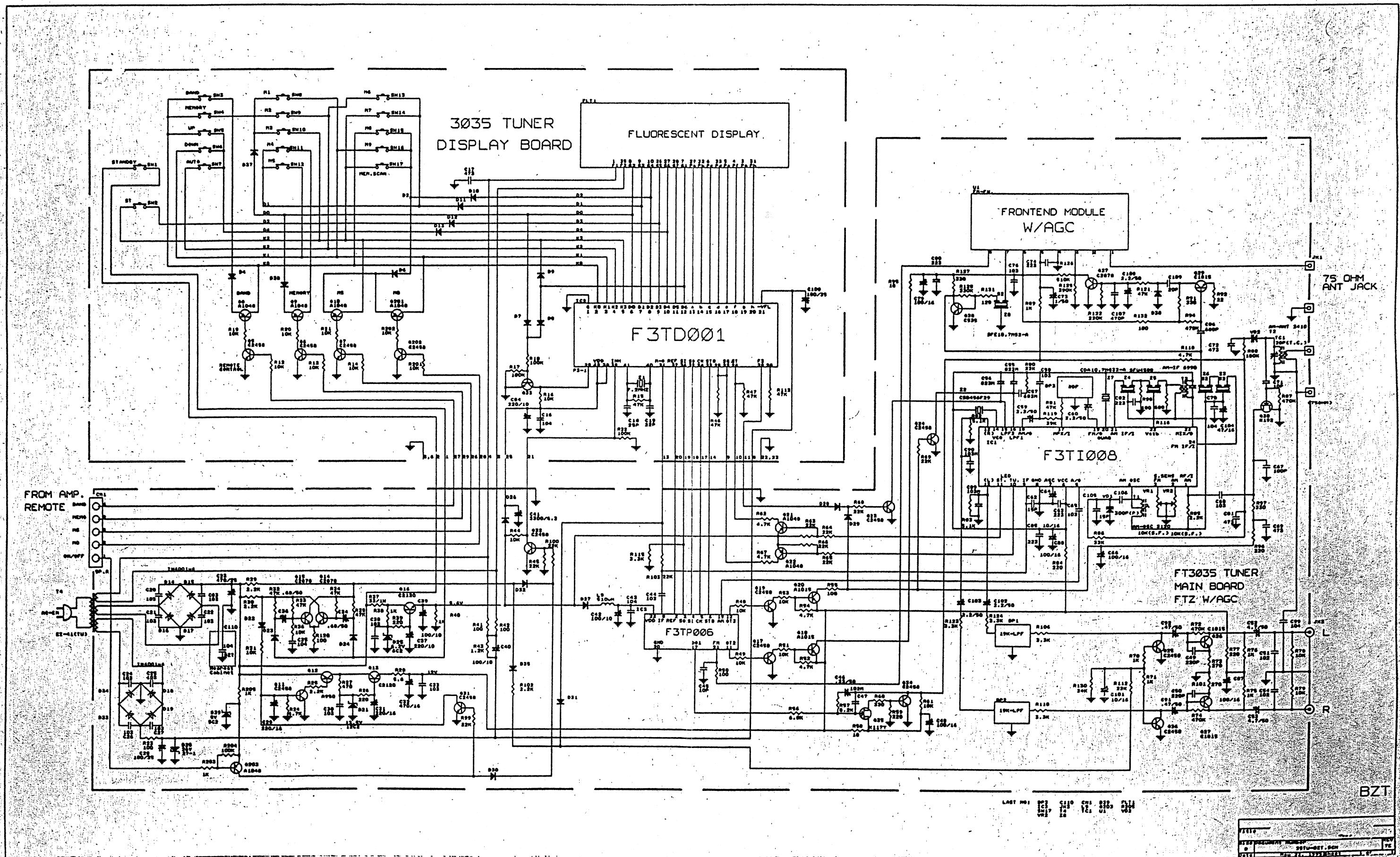


CONTROL PCB

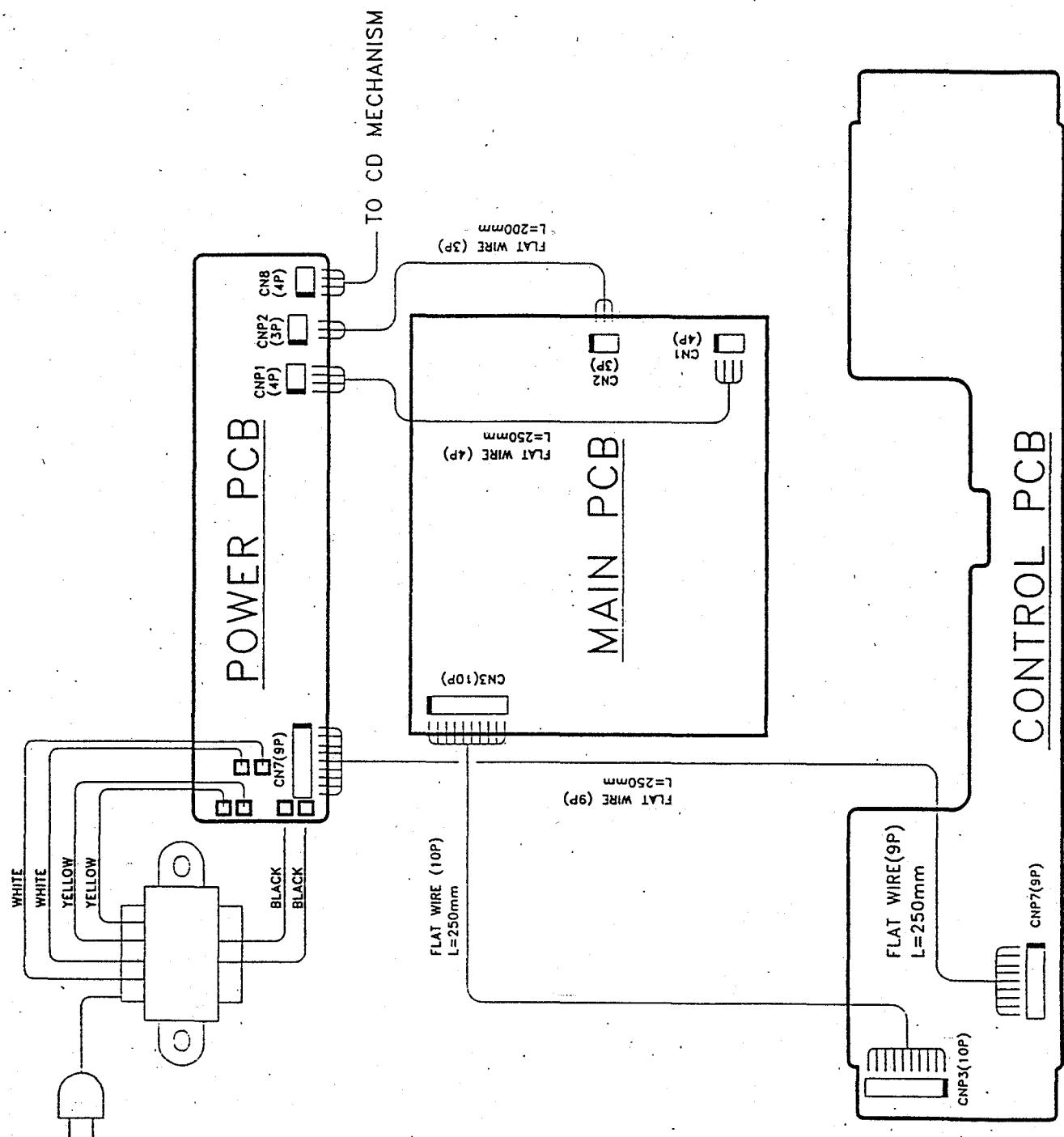


POWER PCB

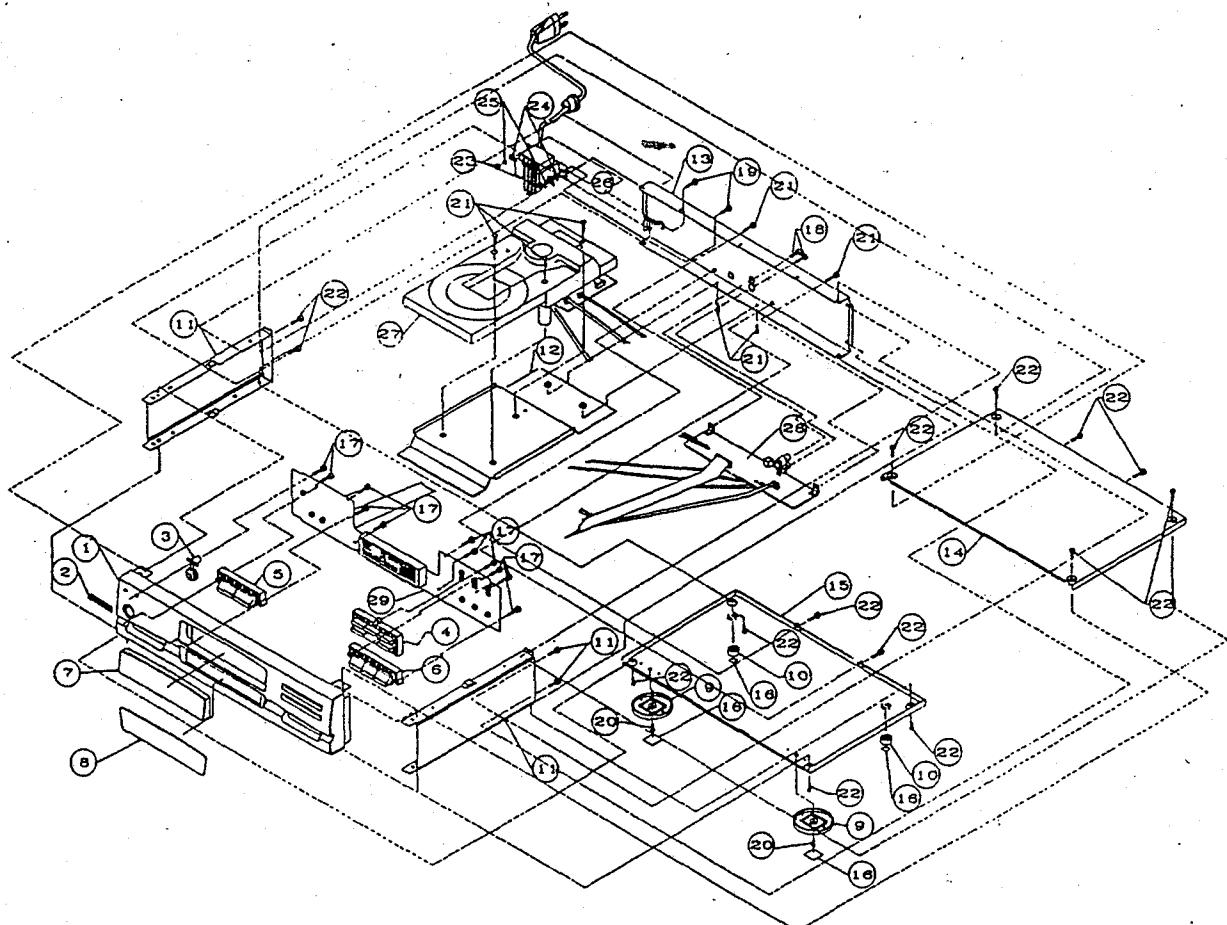
SCHEMATIC DIAGRAM



WIRING DIAGRAM

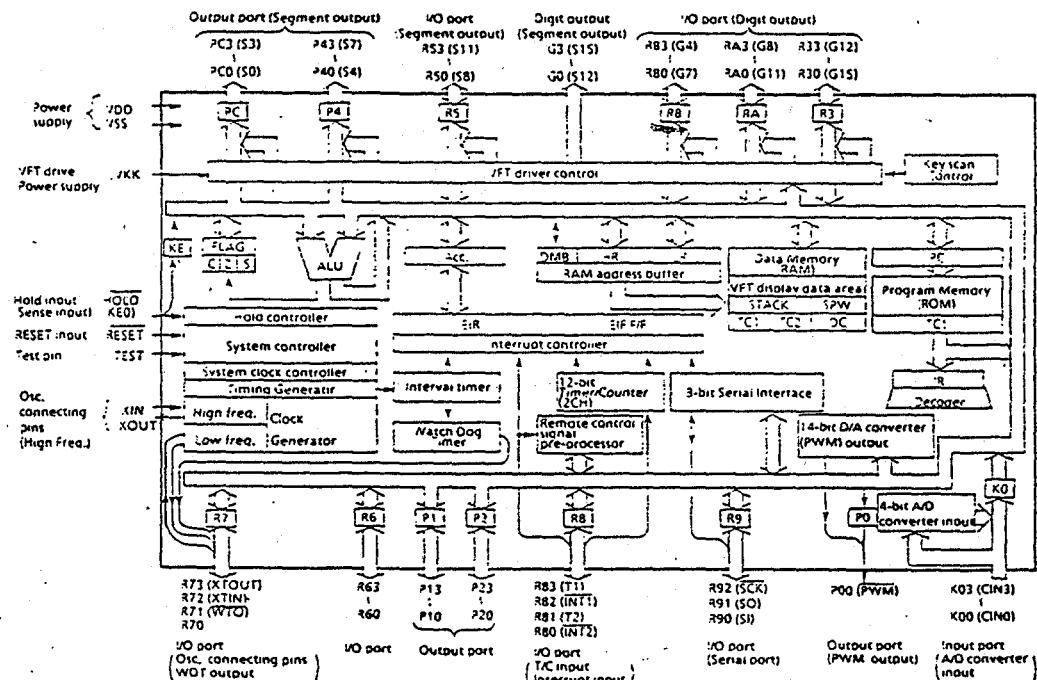


EXPLODED VIEW

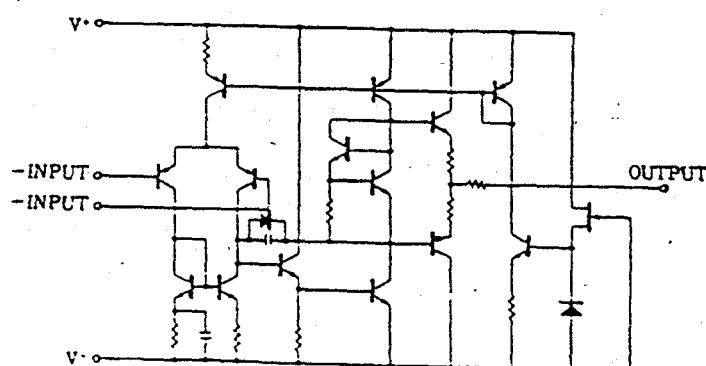


ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	7035501103	CD PANEL (CD-155)	1	16		RUBBER FOOT 12 X 12 X 2.0MM	4
2		BRANDNAME	1			SCREW	
3	7335501000	CD POWER KNOB	1	17		PA 2.6 X 8 (M3) (2683A)	11
4	7335502000	CD FUNCTION KNOB	1	18		PA 3 X 8	2
5	7335503102	CD KNOB (FF/REW)	1	19	5601300801	BM 3 X 8 (FOR TRANSFORMER)	2
6	7335504102	CD PLAY KNOB	1	20		BTB 3 X 4.5	2
7	7235501201	CD DOOR COVER	1	21	5602300602	BTB 3 X 6 BC	9
8	7435501401	CD LENS (PURPLE)	1	22		BTB 3 X 6 (BLACK) (FOR CHASSIS)	16
9	7935102201	FRONT FOOT (GOLDEN)	2	23	5701300253	NUT : M3 (FOR TRANSFORMER)	2
10	7935105000	REAR FOOT	2	24	5432101000	METAL WASHER D3 X 8 X 1MM (FOR TRANSFORMER)	2
11	6432310000	SIDE COVER (CD,EQ & TUNER)	2	25	5432105000	SPRING WASHER O 3 (FOR TRANSFORMER)	2
12	6535510000	CD SUPPORT BRACKET	1	26		TRANSFORMER	1
13	6325510106	BACK COVER (CD)	1	27		CD MECHANISM	1
14	6132210000	TOP COVER (CASS,TUNER,EQ & CD)	1	28		POWER PCB	1
15	6235210000	BOTTOM COVER (CASS,TUNER,CD)	1	29		CONTROL PCB	1

SEMICONDUCTOR INSTRUCTION



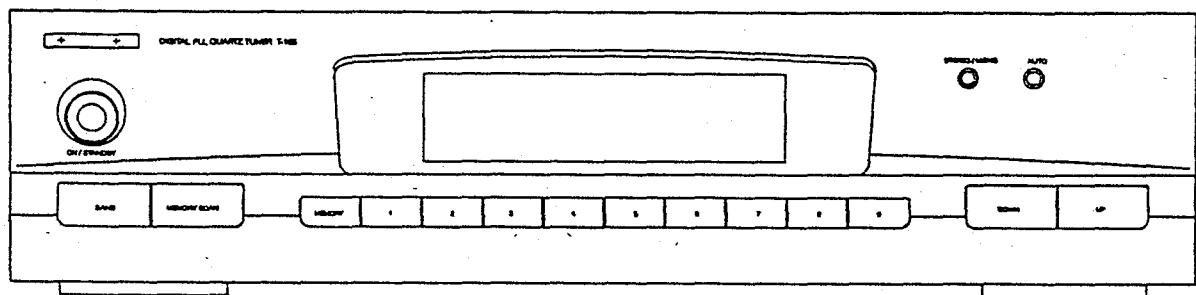
TMP 47C870



4558

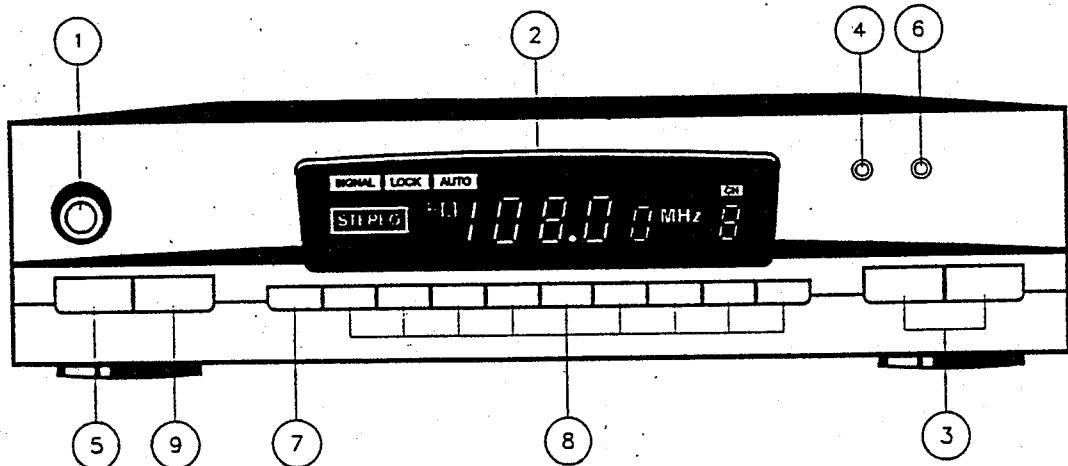
SERVICE MANUAL

DIGITAL PLL QUARTZ TUNER

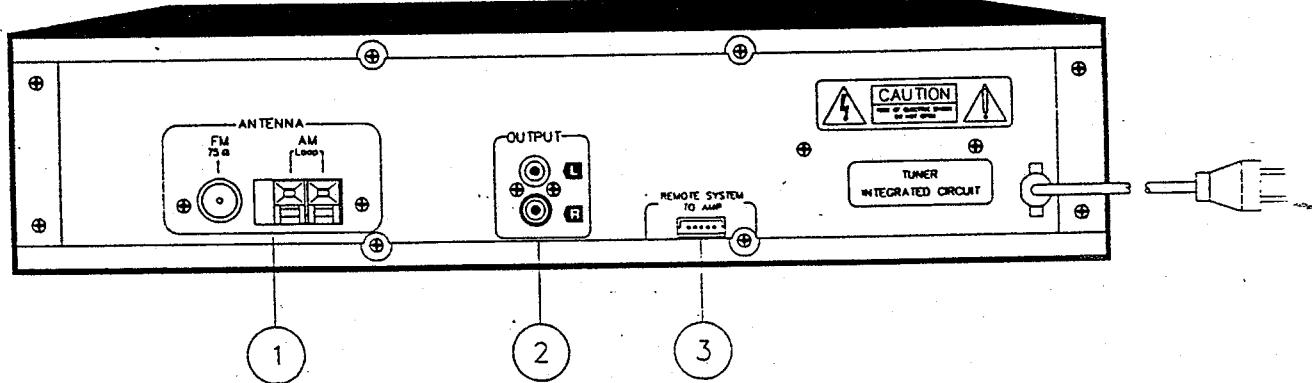


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CONTROL FUNCTIONS



1. ON / STANDBY SWITCH	6. AUTO SEARCH SWITCH
2. COLOR DIGITAL FLUORESCENT DISPLAY	7. MEMORY SWITCH
3. TUNING SWITCH (UP OR DOWN)	8. PRESET STATION SWITCHES
4. FM STEREO / MONO SWITCH	9. MEMORY SCAN SWITCH
5. BAND SWITCH	



1. FM 75 Ω ANTENNA AMPLIFIER AM LOOP ANTENNA AMPLIFIER	3. TUNER TO AMP REMOTE SYSTEM CONNECTOR
2. OUTPUT L / R TERMINAL	

SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields etc.

MEASUREMENTS AND ADJUSTMENTS

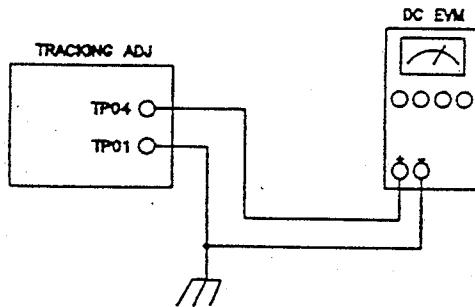
MW / FM

Control positions and equipment used

- MW and FM signal generator (MW and FM-SG).
- Stereo modulator.
- Distortion analyser.
- Oscilloscope.
- AF Oscillator.
- AC and DC electronic voltmeter (EVM)
- Frequency counter.

TUNING FREQUENCY RANGE ADJUSTMENT

1. Test equipment connection is shown in figure 1.
2. Set the unit to the desired band (FM, MW)
3. Place the radio frequency to 108MHz for FM, 522KHz for MW.
4. Adjust L7 for FM, T1 for MW so that the DC voltage is 8.0V for FM, 1.2V for MW.



(FIG.1)

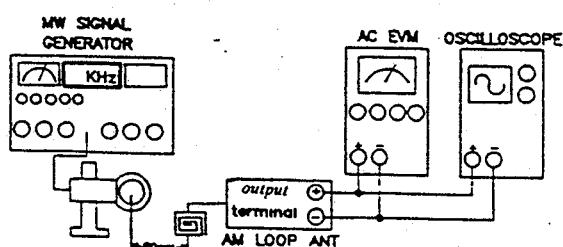
MW RF ADJUSTMENT

1. Test equipment connection is shown in figure 2.
2. Set the unit to "MW" position.
3. Place the radio frequency display and signal generator setting to 612 KHz.
4. Adjust T2 for MW for maximum output.
5. Place the radio frequency display and signal generator setting to 1503KHz.
6. Adjust TC1 for maximum output.
7. Repeat steps 3-6.
8. Adjust T3 for MW for maximum out put.

Note : Antenna input level must be as low as possible being free from AGC.

MW SIGNAL GENERATOR CONDITION

Modulation 30%
 Modulation frequency 1KHz



(FIG.2)

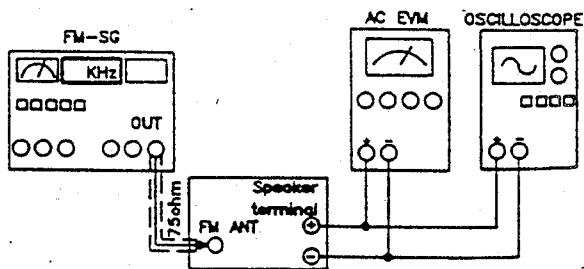
FM RF ADJUSTMENT

1. Test equipment connection is shown in figure 3.
2. Place unit into "FM" position.
3. Place the radio frequency display and signal generator setting to 100.1MHz, add weak input so that noise is included in the output waveform.
4. Adjust L2, L4, L5, L6 for maximum output.

Note: As three output reading will be present, adjustments must be made at center frequency.

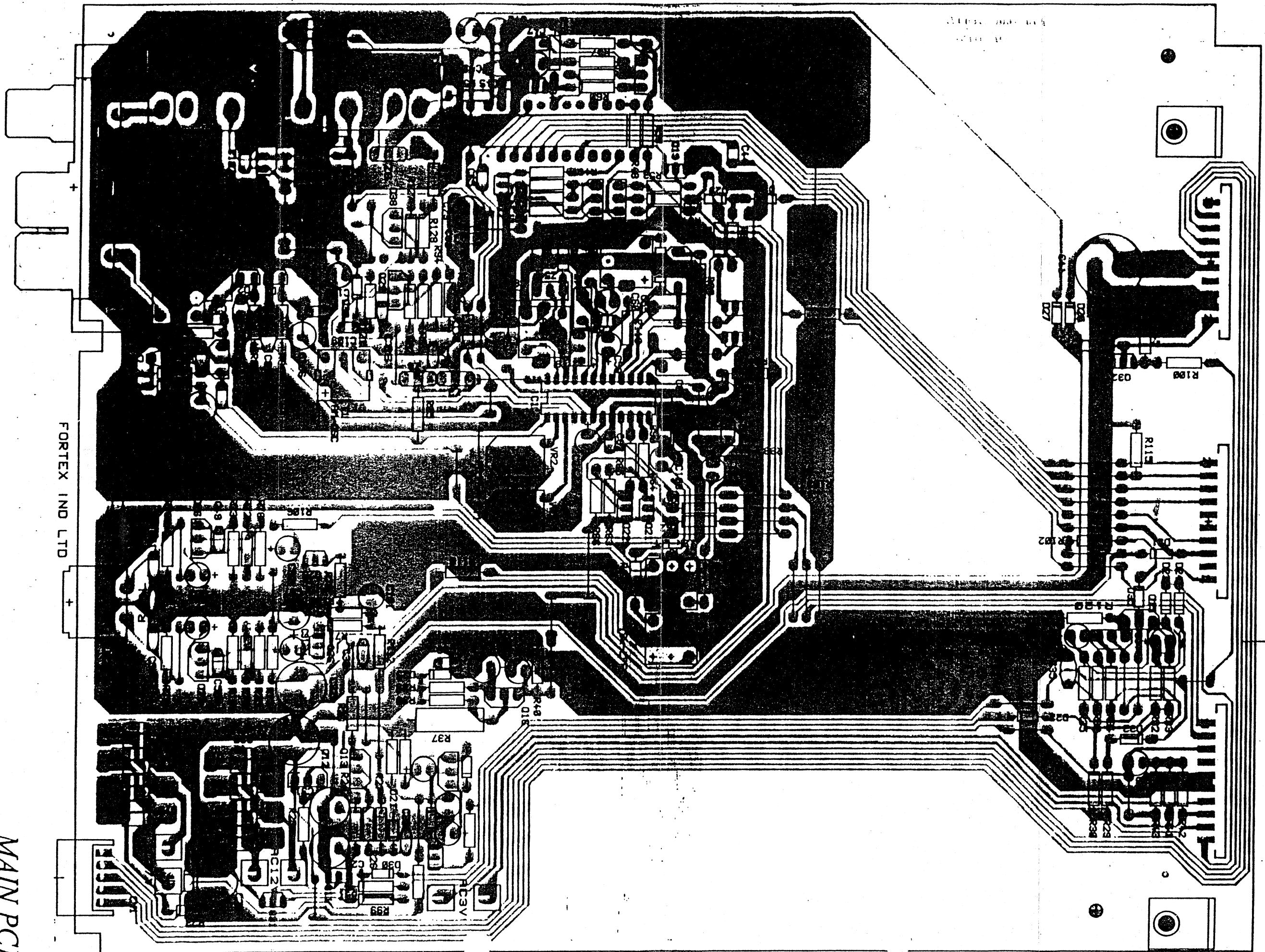
FM SIGNAL GENERATOR CONDITION

Modulation 100%
Modulation frequency 1KHz
Output level 66dB



(FIG.3)

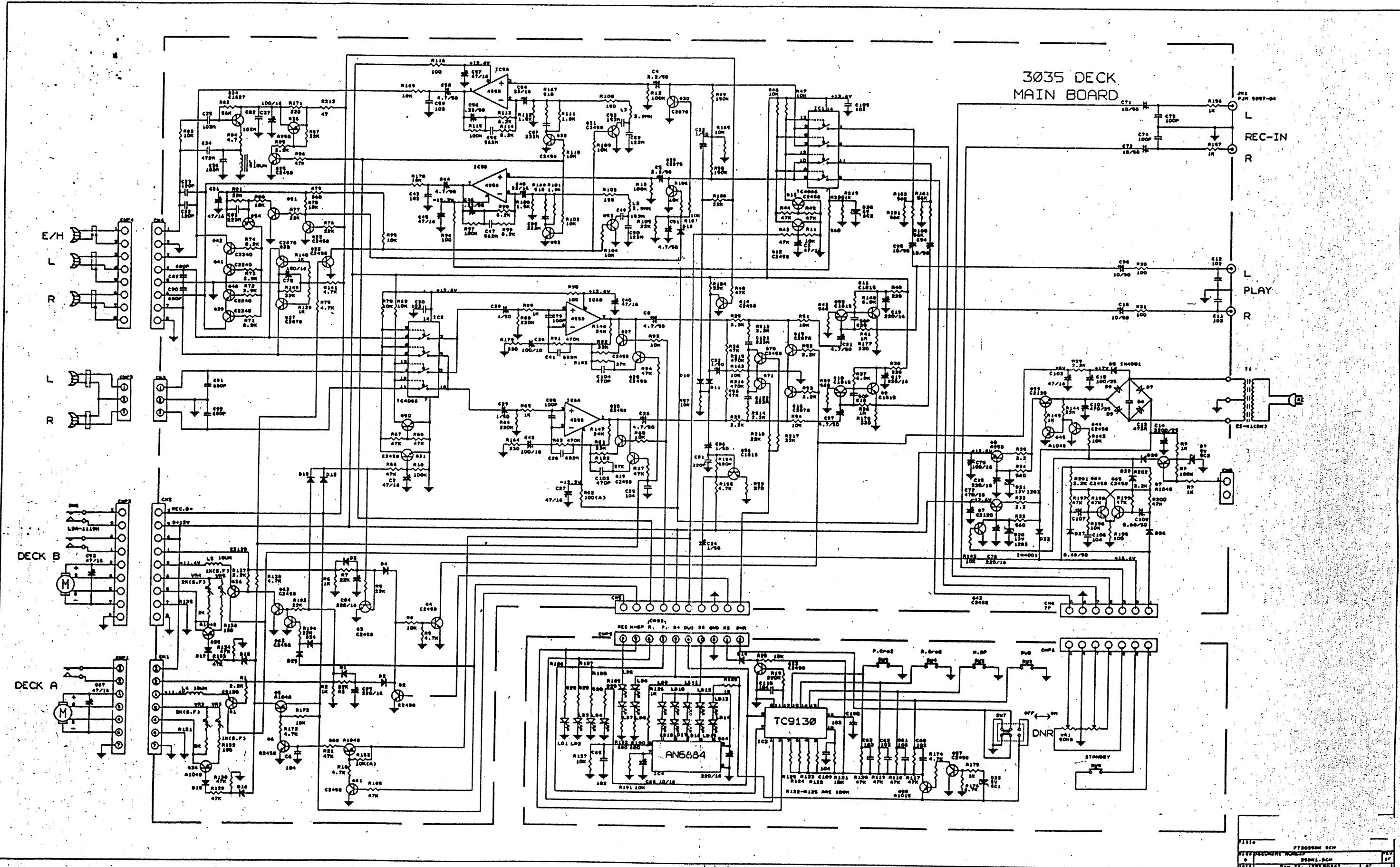
PRINTED CIRCUIT BOARDS DIAGRAM



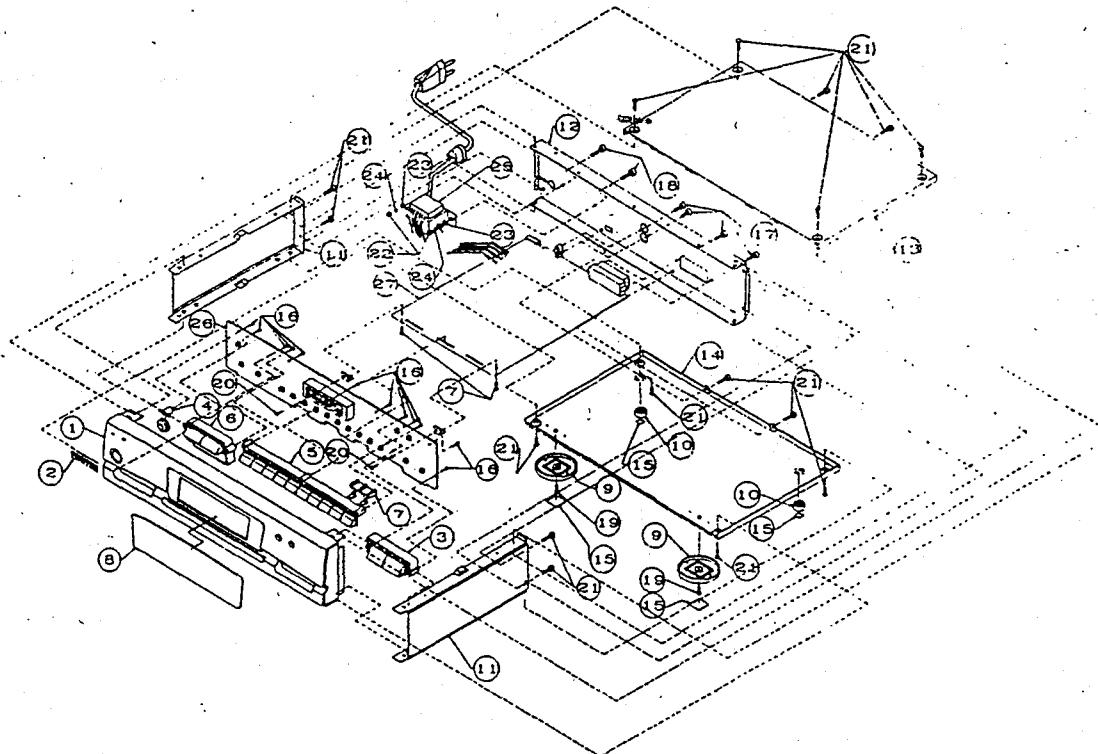
MAIN PCB

L-07365 / DRUCK 5

СЧЕМЫ ИЗ РИАУКИ

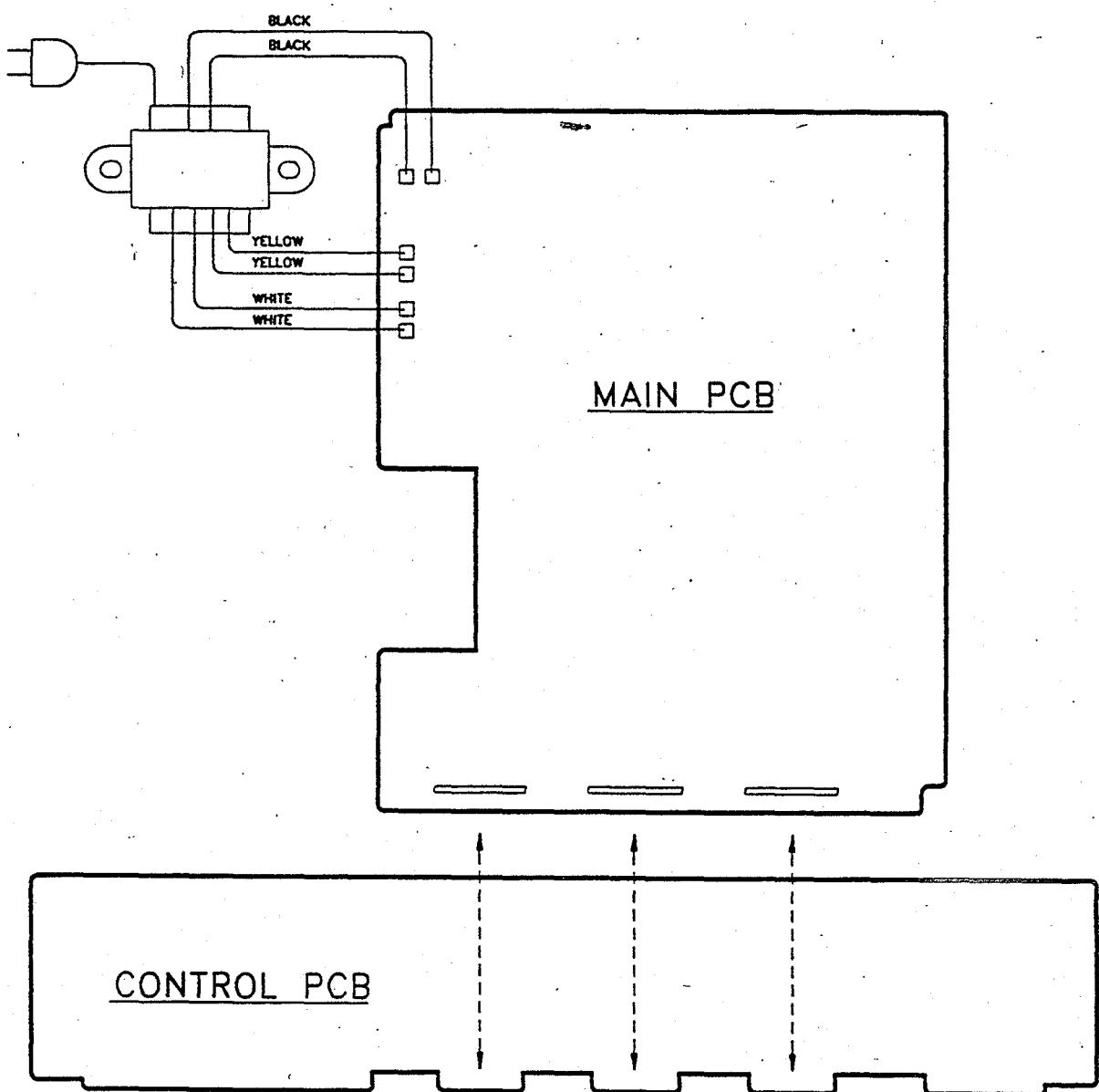


EXPLODED VIEW



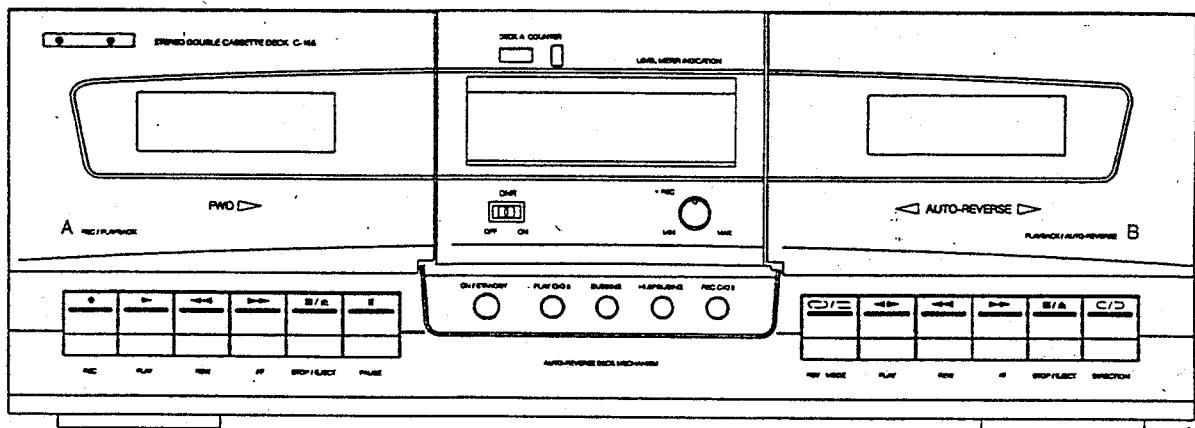
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	7035301103	TU PANEL (TU-155)	1	15		RUBBER FOOT 12 X 12 X 2.0MM	4
2		BRANDNAME	1	16		PA 2.6 X 8 (M3) (2683A)	12
3	7335105107	COMMON KNOB (TU-UP/DOWN)	1	17		PA 3 X 8	4
4	7335301000	POWER KNOB (TU, EQ)	1	18	5601300801	BM 3 X 8 (FOR TRANSFORMER)	2
5	7335302102	TU PRESET KNOB	1	19		BTB 3 X 4.5	2
6	7335303102	TU MEMORY KNOB	1	20	5602300602	BTB 3 X 6 BC	4
7	7335304000	TU AUTO KNOB	1	21		BTB 3 X 6 (BLACK) (FOR CHASSIS)	16
8	7435301401	TU LENS (PURPLE)	1	22	5701300253	NUT : M3 (FOR TRANSFORMER)	2
9	7935102201	FRONT FOOT (GOLDEN)	2	23	5432101000	METAL WASHER D3 X 8 X 1MM (FOR TRANSFORMER)	2
10	7935105000	REAR FOOT	2	24	5432105000	SPRING WASHER Ø 3 (FOR TRANSFORMER)	2
11	6432310000	SIDE COVER (CD,EQ & TUNER)	2	25		TRANSFORMER	1
12	6335310106	BACK COVER (TUNER) (75 OHM)	1	26		CONTROL PCB	1
13	6132210000	TOP COVER (CASS,TUNER,EQ & CD)	1	27		MAIN PCB	1
14	6235210000	BOTTOM COVER (CASS,TUNER,CD)	1				

WIRING DIAGRAM



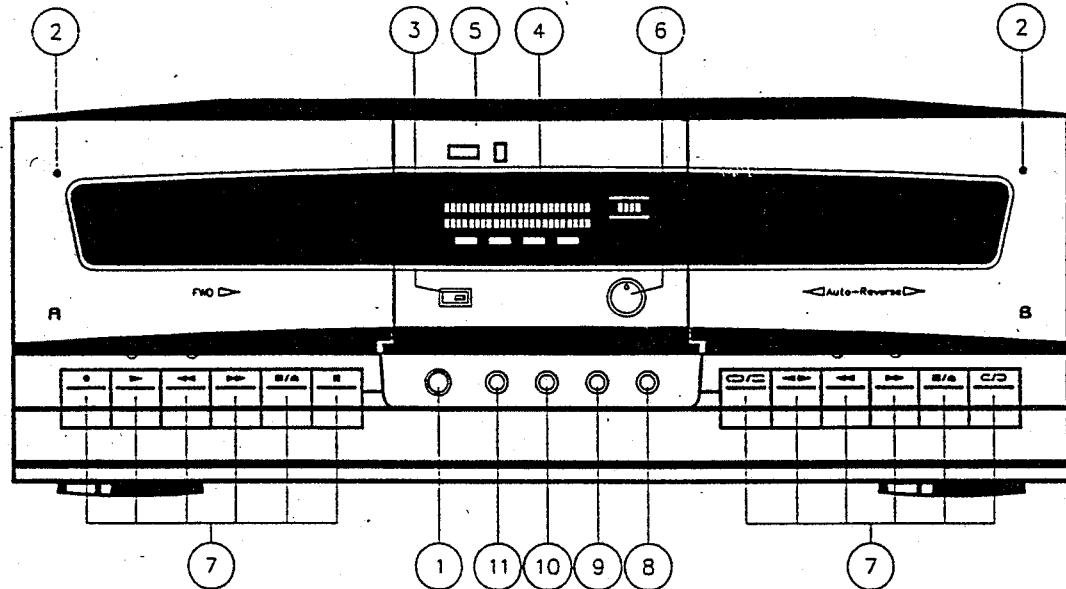
SERVICE MANUAL

STEREO DOUBLE CASSETTE DECK

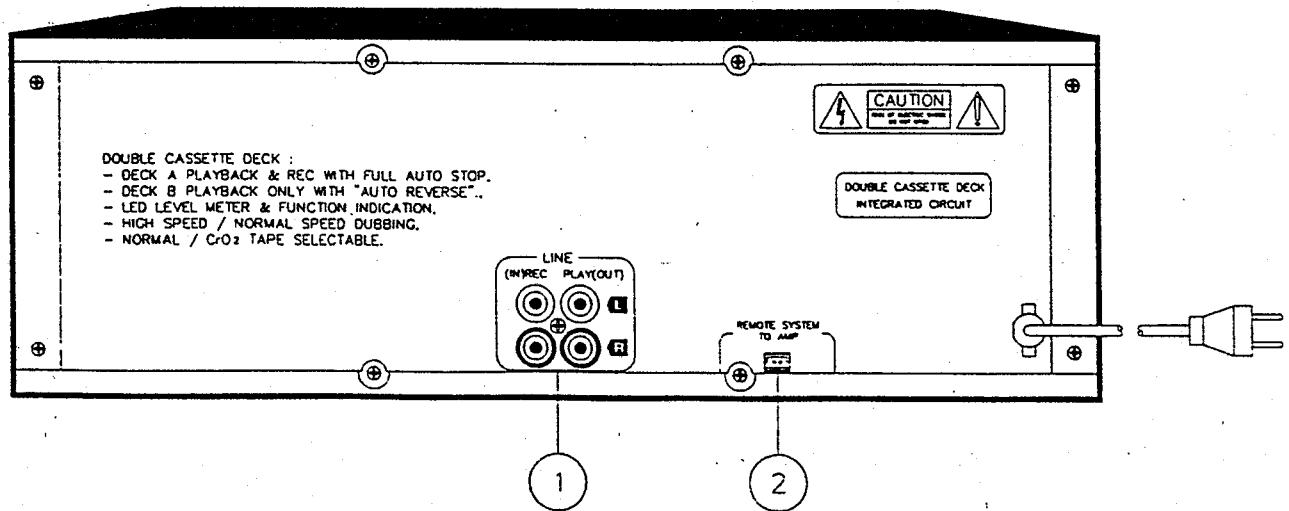


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CONTROL FUNCTIONS



1. ON/STANDBY SWITCH	7. CASSETTE OPERATION BUTTON
2. CASSETTE HOLDER	8. REC CrO ₂ SWITCH
3. DYNAMIC NOISE REDUCTION	9. HIGH SPEED DUBBING SWITCH
4. PEAK LEVEL INDICATOR	10. DUBBING SWITCH
5. TAPE COUNTER AND RESET BUTTON (DECK B)	11. PLAY CrO ₂ / METAL SWITCH
6. REC LEVEL SWITCH	



1. REC (IN) / PLAY (OUT) LINE TERMINAL	2. TAPE TO AMP REMOTE SYSTEM CONNECTOR
----------------------------------------	----------------------------------------

SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields etc.,

MEASUREMENTS AND ADJUSTMENTS

*CASSETTE

MEASUREMENT CONDITION:

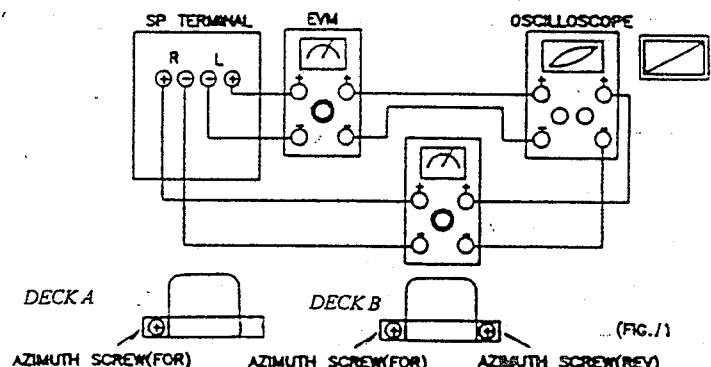
- Make sure heads are clean.
- Make sure capstan and pressure roller are clean.

*TEST TAPE :

- Head azimuth adjustment (10KHz, -10dB)
: MTT-114N.
- Tape speed adjustment (3KHz, -10dB)
: MTT-111N.
- Normal reference blank : MTT-5511

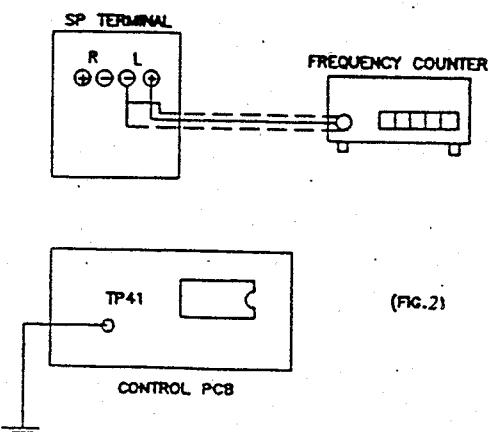
HEAD AZIMUTH ADJUSTMENT (DECK A, B)

1. Test equipment connection is shown in figure 1.
2. Playback the azimuth adjusted part (10KHz, -10dB) of the test tape (MTT-114N) and regulate the angle adjusting screw so that the outputs of L-ch and R-ch are maximized.
(When the adjusting positions are different with L-ch and r-ch, find an position where are the outputs of L-ch and R-ch are balanced, and the mark the adjustment.)
3. At the same time, draw a lissajous waveform and eliminate phase deflection.
4. After the adjustment, apply screw-lock to the angle adjusting value.

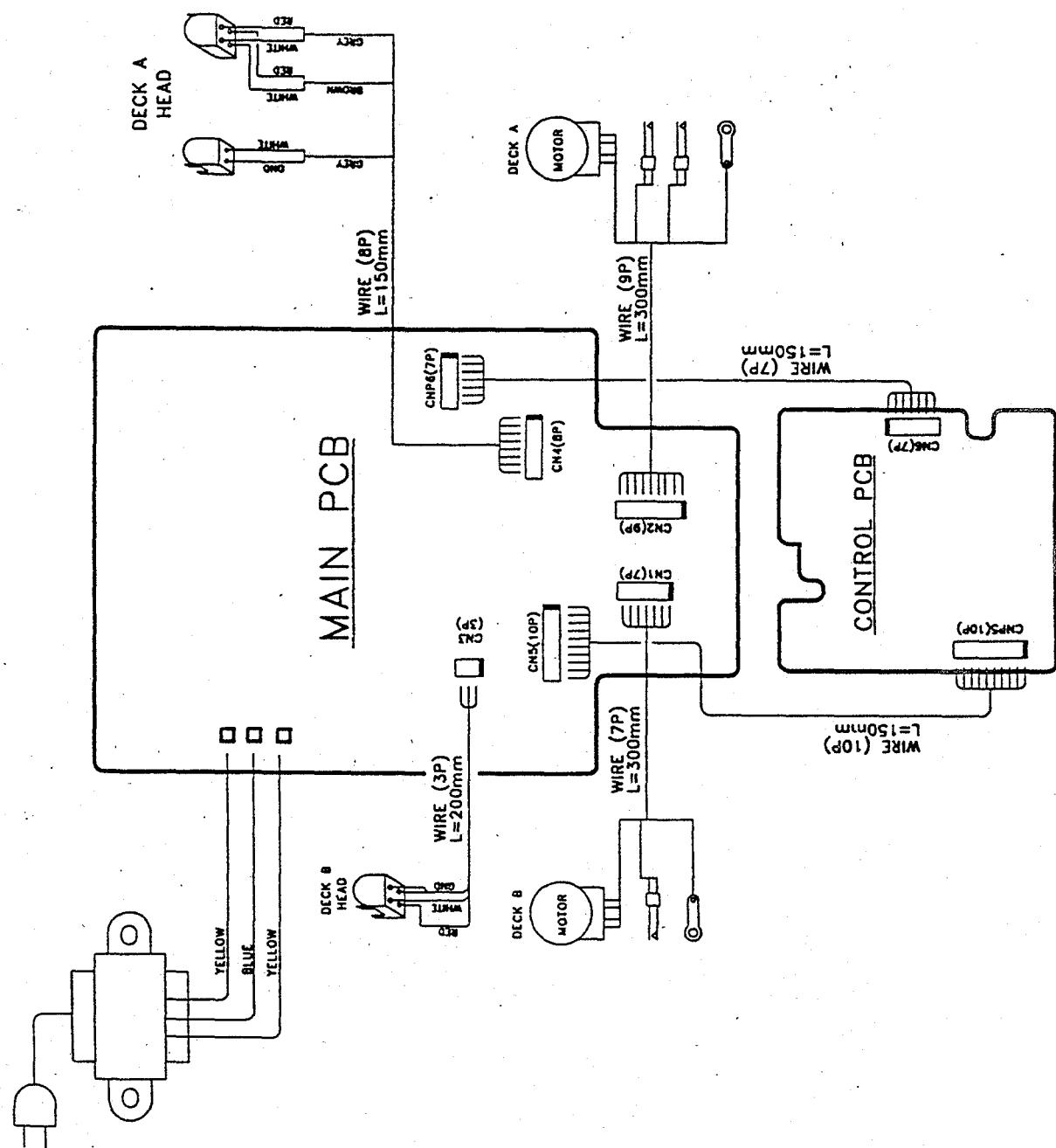


TEST SPEED ADJUSTMENT (DECK A, B)

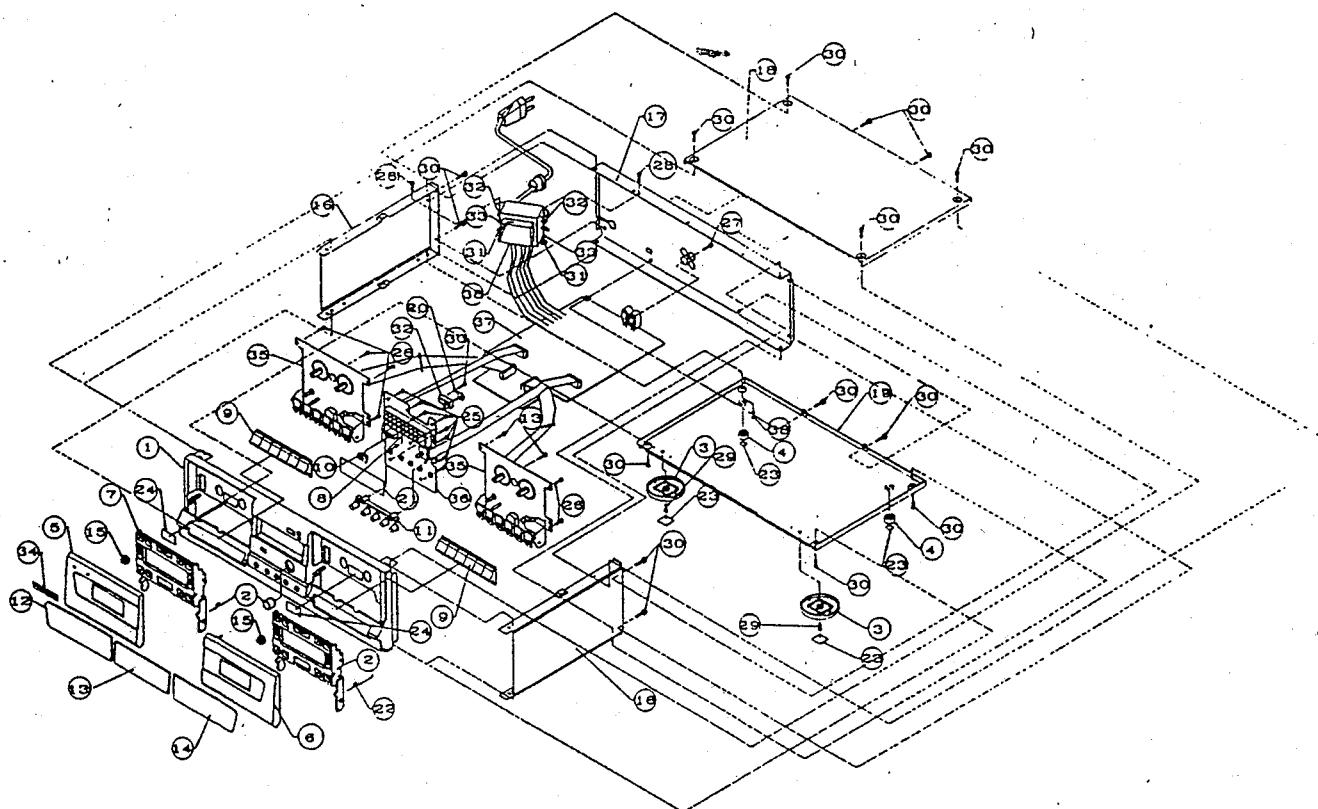
1. Test equipment connection is shown in figure 2.
2. Playback the test tape MTT-111N.
3. Adjust first VR4 (DECK A) and VR2 (DECK B) for high speed ($6000 \pm 60\text{Hz}$).
4. Adjust VR5 (DECK A) and VR3 (DECK B) for normal speed ($3000 \pm 30\text{Hz}$)



WIRING DIAGRAM



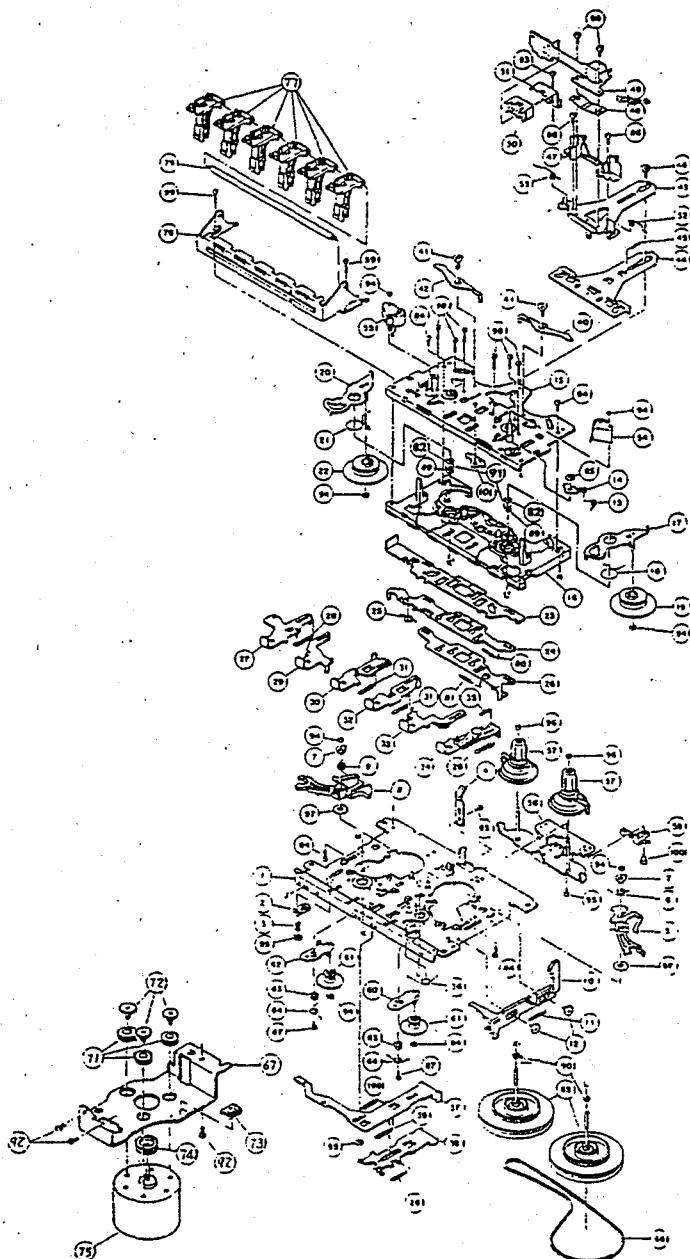
EXPLODED VIEW



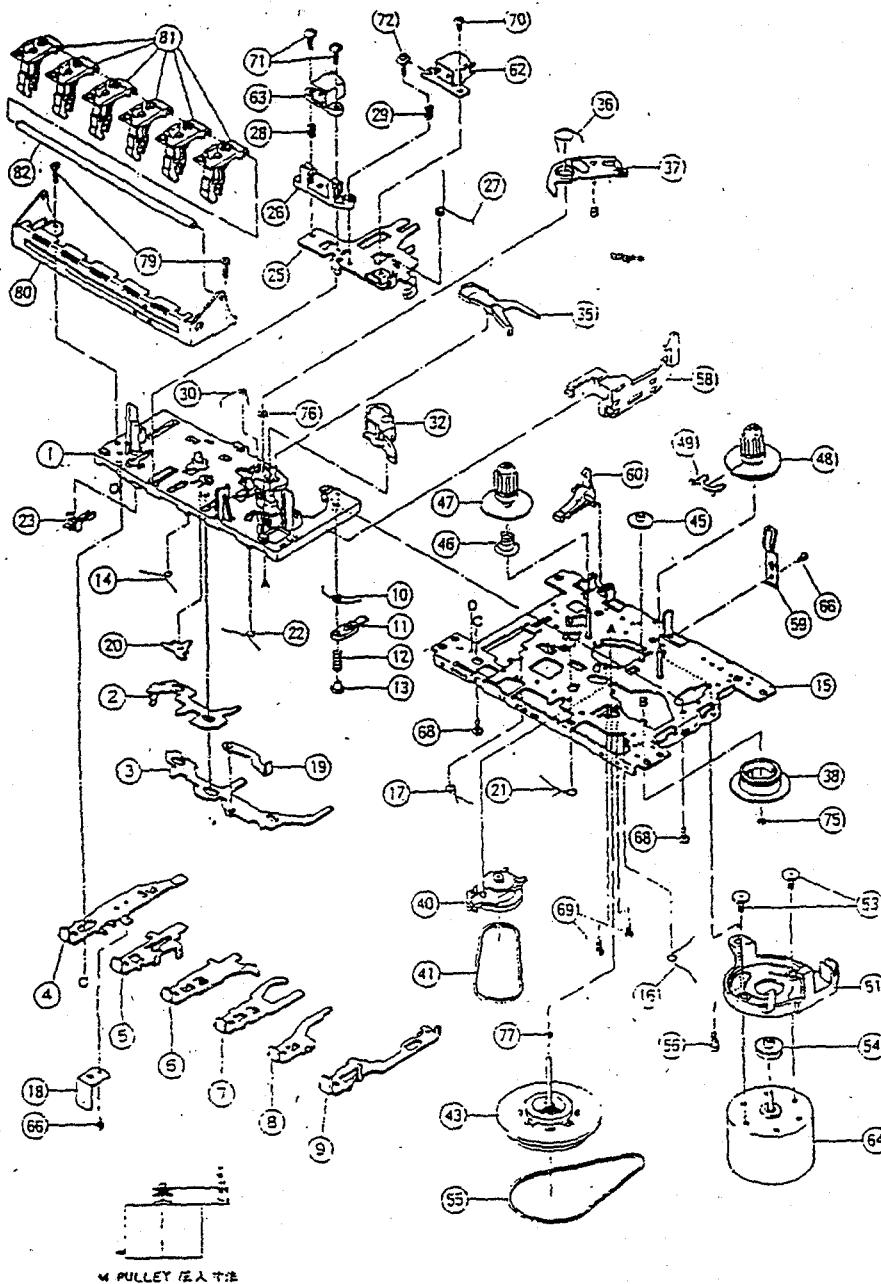
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	7035202103	CASS PANEL (C-155)	1	16	6435110000	SIDE COVER(DECK & AMPI)	2
2	7335108000	AMP BAL & CASS REC KNOB	1	17	6335210206	BACK COVER (CASS)	1
3	7935102201	FRONT FOOT (GOLDEN)	2	18	6132210000	TOP COVER (CASS,TUNER,EO & CDI)	1
4	7935105000	REAR FOOT	2	19	6235210000	BOTTOM COVER (CASS,TUNER,CDI)	1
5	7235201102	CASS DOOR COVER (A) (C-155)	1	20	5438101000	PCB WASHER NO.1 (FOR COUNTER)	1
6	7235202102	CASS DOOR COVER (B)	1	21	7632201201	CASS LEVEL METER CUTSHEET	1
7	7535202000	CASS BRACKET	2	22	5235201000	CASSETTE DOOR SPRING	2
8	7532201000	CASS LED BRACKET	1	23		RUBBER FOOT 12 X 12 X 2.0MM	4
9	7335204201	CASS KNOB: PAUSE	1	24	8402040000	CASS. DOOR LABEL (9.8 x 19.8mm)	2
	7335204202	CASS KNOB: EJECT	2	25		PA 2.6 X 8 (M3) (2683A)	6
	7335204203	CASS KNOB: FF	2	26		PA 2.6 X 10 (M3) (2610A)	9
	7335204204	CASS KNOB: REW	2	27		PA 3 X 8	1
	7335204205	CASS KNOB: PLAY	1	28	5601300801	BM 3 X 8 (FOR TRANSFORMER)	2
	7335204209	CASS KNOB: PLAY (AUTO REV)	1	29		BTB 3 X 4.5	2
	7335204206	CASS KNOB: AUTO REVERSE	1	30		BTB 3 X 6 (BLACK) (FOR CHASSIS)	16
	7335204207	CASS KNOB: DIRECTION	1	31	5701300253	NUT : M3 (FOR TRANSFORMER)	2
	7335204308	CASS KNOB: REC (RED COLOR)	1	32	5432101000	METAL WASHER D3 X 8 X 1MM	2
10	7335202000	CASS DOLBY KNOB	1	33	5432105000	SPRING WASHER Ø 3 (FOR TRANSFORMER)	2
11	7335203000	CASS FUNCTION KNOB	1	34		BRAND NAME	1
12	7435201401	CASS LENS (A) (LIGHT BROWN COLOR)	1	35		CASS MECHANISM	2
13	7435202401	CASS LENS (MIDDLE) (LIGHT BROWN COLOR)	1	36		CASS CONTROL PCB	1
14	7435203401	CASS LENS (B) (LIGHT BROWN COLOR)	1	37		CASS MAIN PCB	1
15	7935201000	CASS GEAR WHEEL	2	38		TRANSFORMER	1



DECK MECHANISM EXPLODED VIEW



No.	PARTS No.	PARTS NAME	QTY
1	1851 01 301	CHASSIS ASSY	1
2	1871 01 15	PAUSE LEVER	1
3	1871 01 16	PAUSE LEVER SPRING	1
4	1829 10 06	PACK SPRING PLATE	1
5	1851 30 01	AUTO LEVER (R)	1
6	1851 20 03	AUTO LEVER (R) SPRING	1
7	1851 20 05	SPRING STOPPER	2
8	1851 20 02	AUTO LEVER (R)	1
9	1851 20 04	AUTO LEVER SPRING (L)	1
10	1851 17 03	EJECT SLIDE LEVER	1
11	1851 17 02	EJECT SLIDE LEVER SPRING	1
12	1821 12 23	P.K COLLAR SCREW (R)	3
13	1851 18 301	SUB CHASSIS ASSY	1
14	1851 01 01	TURN OVER ARM	1
15	1851 03 02	TURN OVER SPRING	1
16	1851 02 501	BUTTON BASE ASSY	1
17	1851 03 303	T-GEAR ARM (R) ASSY	1
18	1851 03 04	T-GEAR ARM (L) SPRING	1
19	1851 03 03	T-CAM GEAR (R)	1
20	1851 06 301	T-GEAR ARM (R) ASSY	1
21	1851 06 03	T-GEAR ARM (R) SPRING	1
22	1851 06 02	T-CAM GEAR (R)	1
23	1851 02 17	SLIDE PLATE	1
24	1851 02 301	LOCK ACTUATOR ASSY	1
25	1851 02 30	LOCK RELEASE SPRING	1
26	1851 02 301	SW ACTUATOR ASSY	1
27	1851 02 304	MODE BUTTON ASSY (R)	1
28	1851 02 32	BUTTON LEVER SPRING	3
29	1851 02 32	PLAY BUTTON LEVER (S)	1
30	1851 02 35	FF BUTTON LEVER (S)	1
31	1851 02 24	FF BUTTON LEVER SPRING	2
32	1851 02 34	FF BUTTON LEVER FISH	1
33	1851 02 31	STOP BUTTON LEVER (S)	1
34	1851 02 304	PROGRAM BUTTON LEVER (S)	1
35	1851 02 27	PULL ARM SPRING	1
36	1851 02 21	STOP BUTTON LEVER SPRING	1
37	1851 04 04	RELAY PLATE	1
38	1851 16 02	FF SW PLATE	1
39	1851 04 10	R.C. SPRING	1
40	1851 18 05	AUTO CONTROL ARM (S)	1
41	1851 18 C	C.A.M COLLAR SCREW	2
42	1851 18 06	AUTO CONTROL ARM (R)	1
43	1851 04 01	HEAD PANEL	1
44	1851 04 02	R.C. PLATE	1
45	1851 04 09	R.C. PLATE SPRING	1
46	1851 04 57	H.P. COLLAR SCREW	1
47	1851 04 03	TAPE GUIDE	1
48	1851 04 05	HEAD SPRING PLATE	1
49	1821 04 33	P HEAD HR-2SP-X/P-24-3	1
50	6403 02 04	SLIDE SWITCH R66 31 87	1
51	1851 18 01	SWATCH BRACKET	1
52	1851 04 06	PINCH ROLLER SPRING (R)	1
53	1851 04 07	PINCH ROLLER SPRING (R)	1
54	1851 09 501	PINCH ROLLER (R) ASSY	1
55	1851 10 501	PINCH ROLLER (L) ASSY	1
56	1851 11 301	REEL PLATE ASSY	1
57	1851 11 501	REEL ASSY	2
58	6401 01 151	LEAF SWITCH MSW-1290-U	1
59	1		
60	1851 07 301	FF GEAR ARM (R) ASSY	1
61	1851 07 03	FF GEAR	2
62	1851 08 301	FF GEAR ARM (R) ASSY	1
63	1851 07 05	FF GEAR ARM COLLAR	1
64	1851 07 04	FF GEAR ARM SPRING (R)	1
65	1851 12 501	GUYWHEEL ASSY	1
66	1821 12 142	MAIN BELT	1
67	1851 14 29	MOTOR BRACKET	1
68	1851 14 06	P KICK LEVER	1
69	1821 12 15	P KICK LEVER S	1
70	1		
71	1821 12 36	MOTOR RUBBER	1
72	1821 12 02	M COLLAR SCREW	2
73	1821 12 09	ANTI-VIBRATION FELT	1
74	1851 14 02	MOTOR PULLEY	1
75	1821 12 34	MOTOR ZE-ZE-X-70	1
76	1851 14 04	P KICK LEVER SPRING	1
77	1821 12 37	DIRECTION LEVER	1
78	1851 31 01	BUTTON FRAME (S)	1
79	1829 31 03	BUTTON LEVER SHAFT	1
80	1851 02 25	LOCK ACTUATOR SPRING	1
81	1851 02 26	SW ACTUATOR SPRING	1
82	1851 20 01	P WASHER 1.7x4.1x1	2
83	4P33 20 0121	DEL. TTS SCREW M2x1 (SPECIAL)	1
84	1874 00 00	P TAPPING SCREW M2x6	4
85	3876 00 00	P WASHER CUT 2.143n 5	3
86	3079 00 00	TAMS SCREW M2x6	3
87	3C4 140 1	TSX 1.7x4	2
88	3999 20 07	SCREW M2x4.5	4
89	3786 00 00	P WASHER 2.4x5n 3	2
90	3889 00 00	P WASHER 2.1x3.1x1	2
91	3959 03 09	P WASHER 1.45x4x1.5	4
92	9180 00 00	P TAPPING SCREW M2x4	2
93	JY-H 11 251	TS 2.1x3.5	1
94	3421 00 00	P WASHER CUT 1.2x3x0.25	3
95	4711 116 1	TS 1.7x4	1
96	3888 00 00	P WASHER CUT 1.2x3x0.4	2
97	3999 00 09	P WASHER 3.4x5n 13	2
98	44-1011451	TS 2.4x5	1
99	1999 11 02	AMERICA TAPPING SCREW M2x9	2
100	1161 00 00	TAPPING SCREW M2x5	1
101	1		

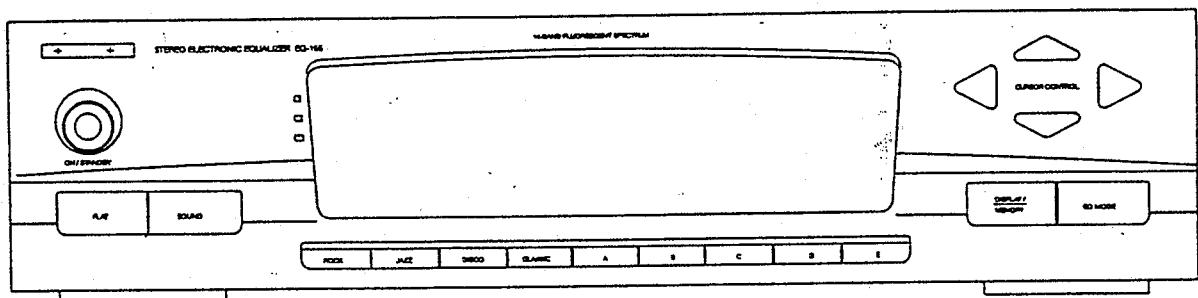


W PULLEY (E A T)

NAME	DESCRIPTION	QTY
10	BASE ASSY	1
11	SWITCH ACTUATOR	1
12	PUSH BUTTON ACTUATOR	1
13	REC BUTTON LEVER	1
14	PLAY BUTTON LEVER	1
15	REW BUTTON LEVER	1
16	FF BUTTON LEVER	1
17	STOP BUTTON LEVER	1
18	PAUSE BUTTON LEVER	1
19	P CONTROL SPRING	1
20	PAUSE LEVER (E)	1
21	PAUSE LEVER SPRING	1
22	PAUSE STOPPER	1
23	BUTTON LEVER SPRING (A)	1
24	CHASSIS ASSY	1
25	E ACTUATOR SPRING	1
26	P.S. LEVER SPRING	1
27	REC SPRING PLATE	1
28	E KICK LEVER	1
29	PR STOPPER	1
30	REC BUTTON LEVER SPRING	1
31	BUTTON LEVER SPRING (B)	1
32	LEAF SWITCH MSW-1541F	1
33		1
34	HEAD PANEL	1
35	HEAD BASE	1
36	PANEL P SPRING	1
37	EN SPRING	1
38	AZIMUTH SPRING	1
39	M CONTROL SPRING	1
40		1
41	PINCH ROLLER ARM ASSY	1
42		1
43		1
44	SENSING LEVER	1
45	GEAR PLATE SPRING	1
46	GEAR PLATE ASSY	1
47	CAM GEAR	1
48		1
49	RF CLUTCH ASSY	1
50	RF BELT	1
51		1
52	FLYWHEEL ASSY	1
53		1
54	FF GEAR	1
55	BACK TENSION SPRINGS	1
56	SUPPLY REEL ASSY	1
57	TAKE UP REEL ASSY	1
58	SENSE	1
59		1
60	MOTOR BRACKET	1
61		1
62	MOTOR COLLAR SCREW	2
63	MOTOR PULLEY	1
64	MAIN BELT	1
65	MB SCREW	1
66		1
67	EJECT SLIDE LEVER	1
68	PACK SPRING	1
69	RECORD SAFETY LEVER	1
70		1
71	RP HEAD ASY (SR-AA2N) 1	1
72	6002 01 75	1
73	E HEAD LEMA-51	1
74	MOTOR ELE-52002-2B	1
75	6002 03 24	1
76	C TAPPING SCREW M2x3	2
77		1
78	F TAPPING BND SCREW M2x3	2
79	H TAPPING SCREW FOR CAMERA HOUSING	2
80	9999 18 09	2
81	G HINGE SCREW M2x3	1
82	9915 00 00	1
83	O/C CAP SCREW M2x25	2
84	9222 00 00	2
85	AZIMUTH SCREW M2x1	1
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SERVICE MANUAL

STEREO ELECTRONIC EQUALIZER

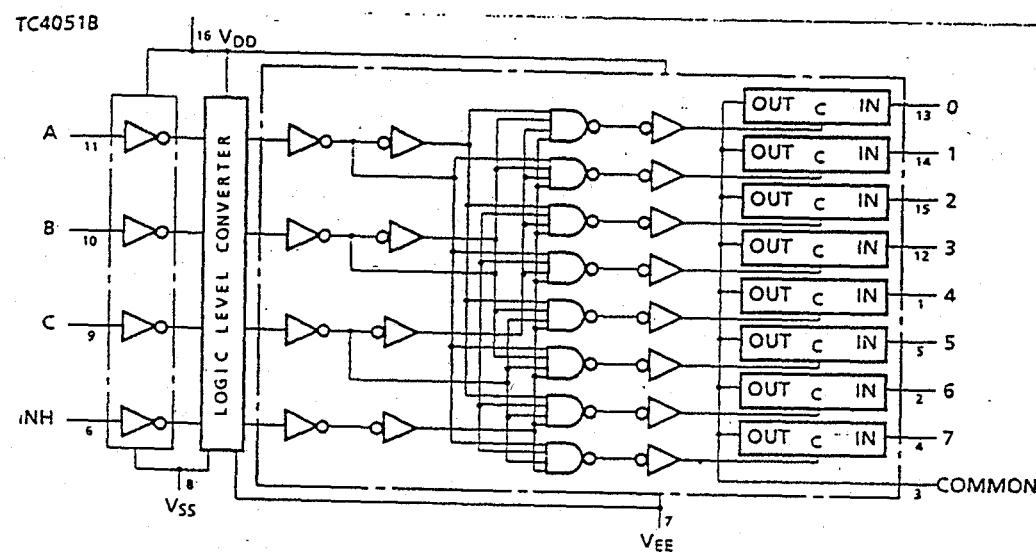


EQ - 155

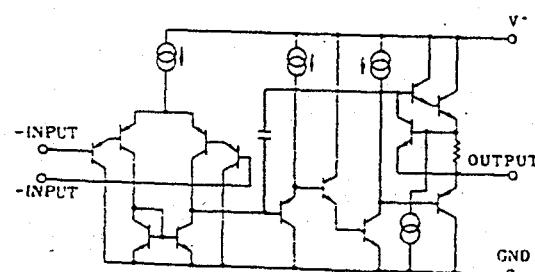
SAFETY PRECAUTION

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields etc.

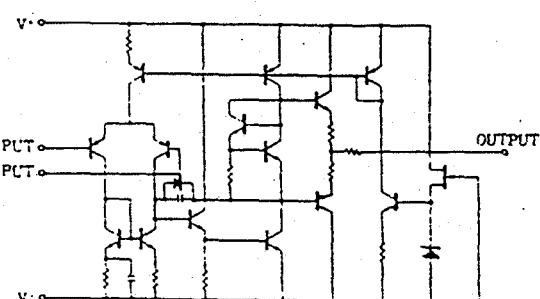
SEMICONDUCTOR INSTRUCTION



TC4051B

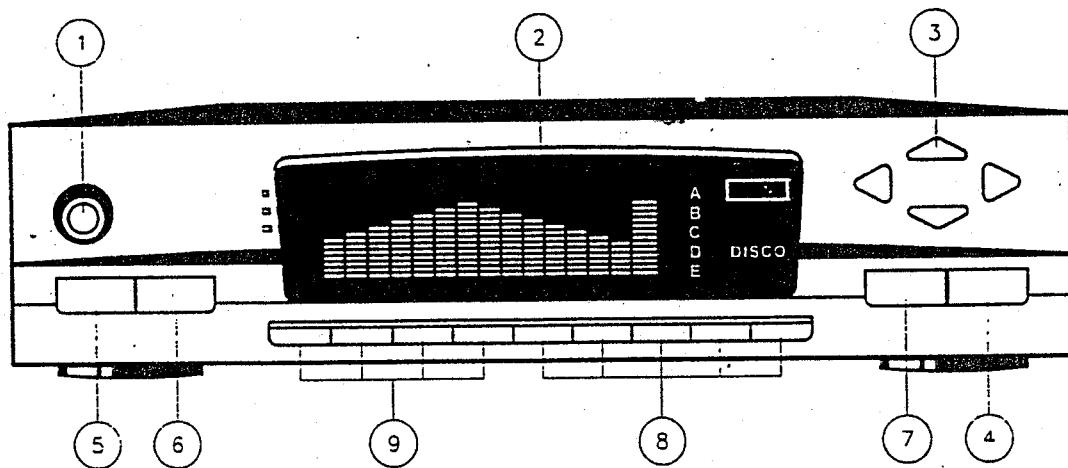


NJM324

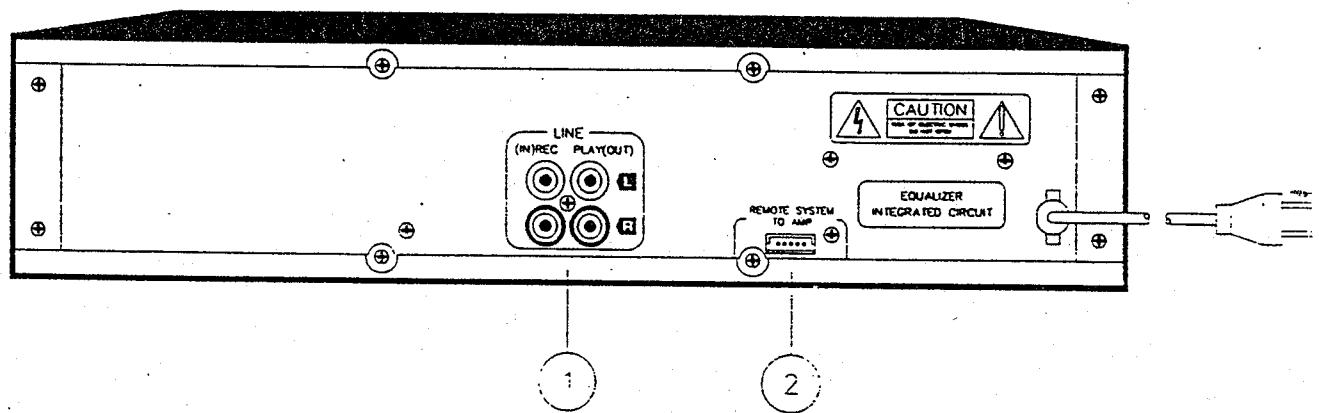


NJM4558

CONTROL FUNCTIONS

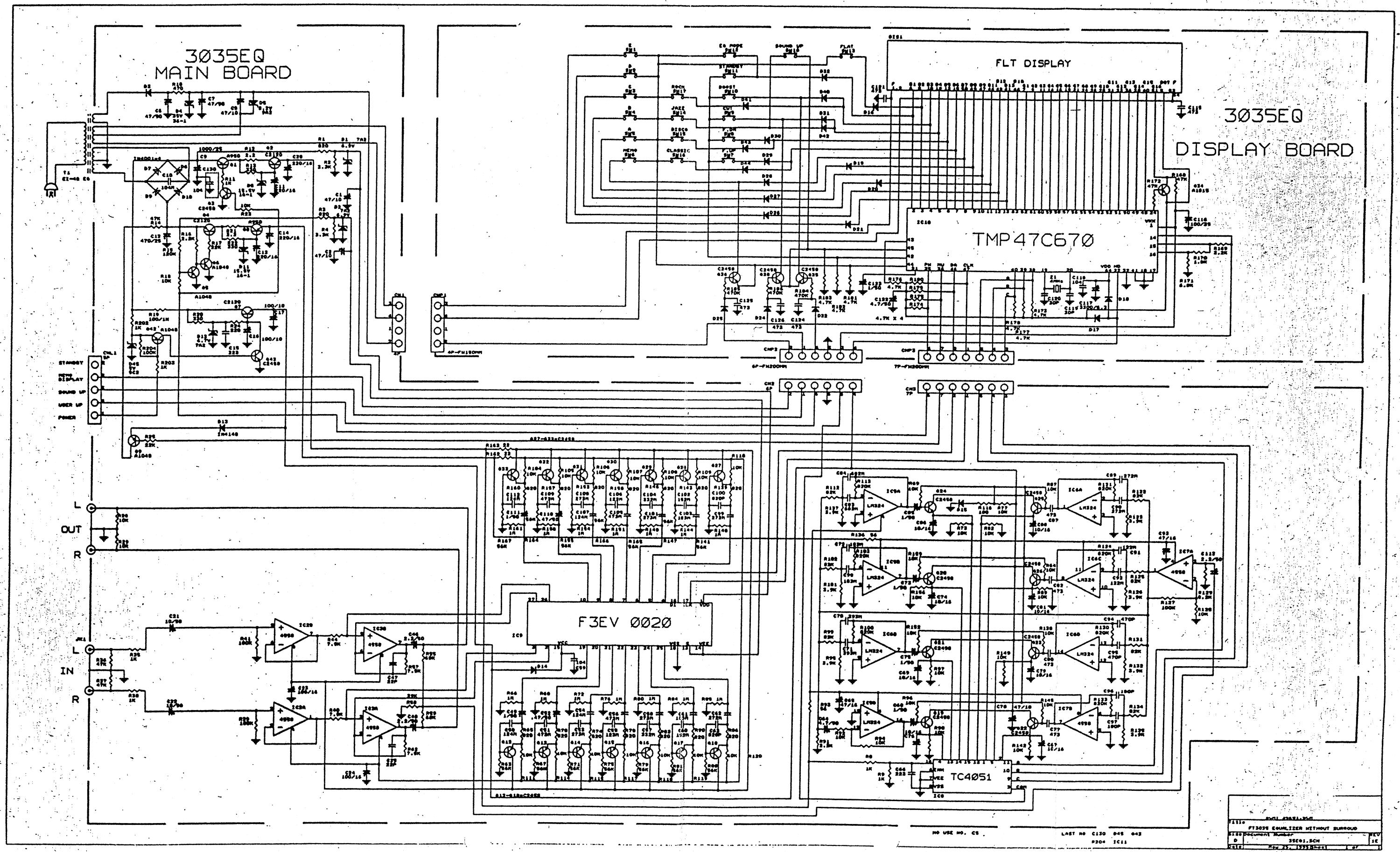


1. ON / STANDBY SWITCH
2. SPECTRUM DISPLAY
3. EQUALIZER SETTING
4. EQ MODE SWITCH (FINE / ALT)
5. EQUALIZER FLAT BUTTON
6. SURROUND SOUND ON / OFF
7. DISPLAY / MEMORY MODE SWITC
8. USER PRESET SWITCH (A-E)
9. SURROUND SOUND MODE SWITC

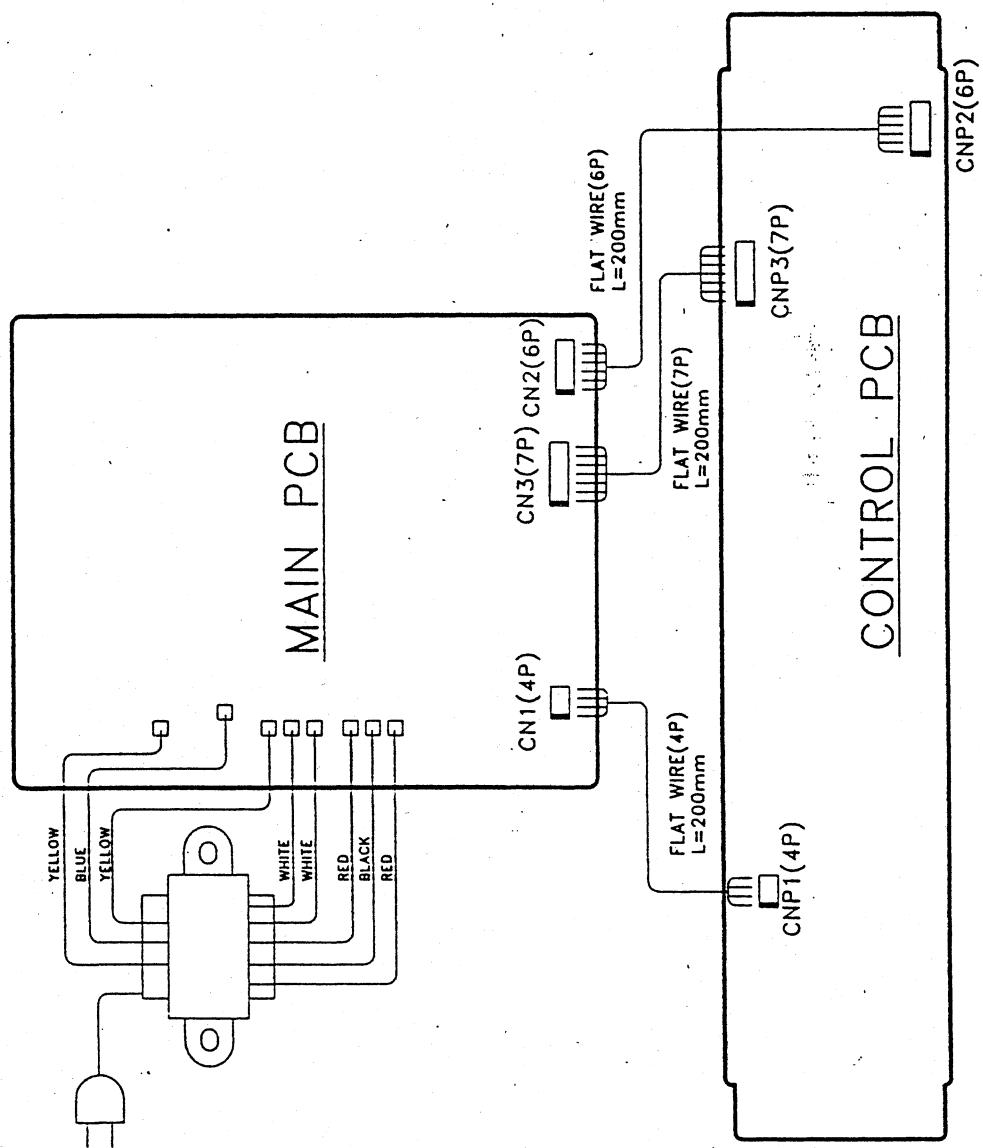


1. REC (IN) / PLAY (OUT) LINE TERMINAL
2. EQ TO AMP REMOTE SYSTEM CONNECTOR

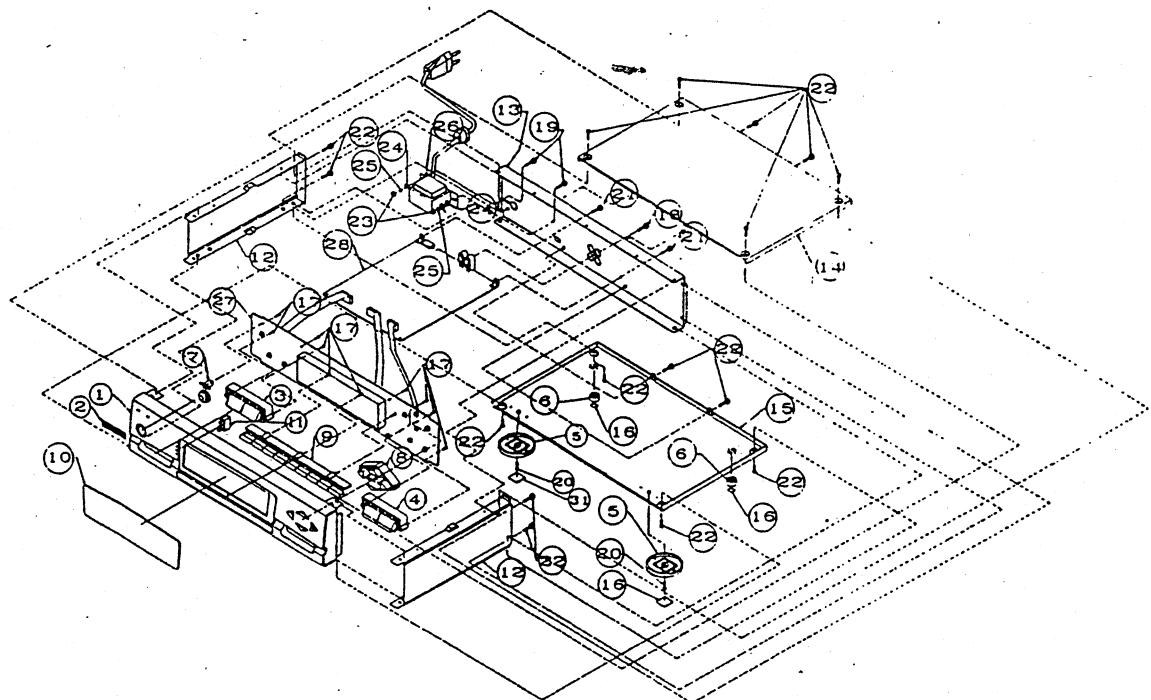
SCHEMATIC DIAGRAM



WIRING DIAGRAM



EXPLODED VIEW

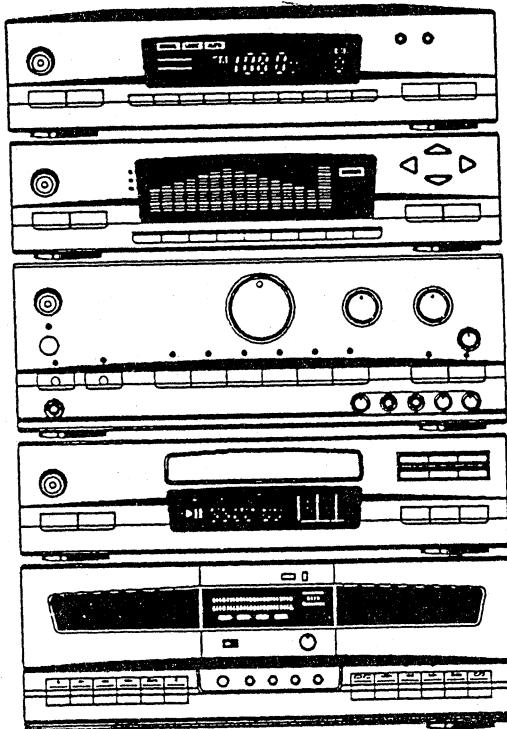


ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	7035402103	EQ PANEL (EQ-155) (NO SURR)	1	16		RUBBER FOOT 12 X 12 X 2.0MM	4
2		BRANDNAME	1			SCREW	
3	7335105108	COMMON KNOB (SOUND)	1	17		PA 2.6 X 8 (M3) (2663A)	11
4	7335105109	COMMON KNOB (EQ MODE)	1	18		PA 3 X 8	1
5	7935102201	FRONT FOOT (GOLDEN)	2	19	5601300601	BM 3 X 8 (FOR TRANSFORMER)	2
6	7935105000	REAR FOOT	2	20		BTB 3 X 4.5	2
7	7335301000	POWER KNOB (TU, EQ)	1	21	5602300602	BTB 3 X 6 BC	4
8	7335401000	EQ SETTING KNOB (CURSOR)	1	22		BTB 3 X 6 (BLACK) (FOR CHASSIS)	16
9	7335402103	EQ USER KNOB (ROCK)	1	23	5701300253	NUT : M3 (FOR TRANSFORMER)	2
10	7435401401	EQ LENS (PURPLE)	1	24	5432101000	METAL WASHER 03 X 8 X 1MM (FOR TRANSFORMER)	2
11	7435402000	EQ INDICATED LENS (TRANSPARENT)	1	25	5432105000	SPRING WASHER 0 3 (FOR TRANSFORMER)	2
12	6432310000	SIDE COVER (CD, EQ & TUNER)	2	26		TRANSFORMER	1
13	6335410106	BACK COVER (EQ)	1	27		CONTROL PCB	1
14	6132210000	TOP COVER (CASS, TUNER, EQ & CD)	1	28		MAIN PCB	1
15	6235410000	BOTTOM COVER (EQ)	1				



Technische Unterlage
ERGÄNZUNG 2
CD-SECTION

Best.-Nr.:
067 993 6
067 994 4



UTS-Nr.: 999 QUELLE
Best.Nr.: 0679936/01
Ger.Bez.: UNIV.STEREO-TURM

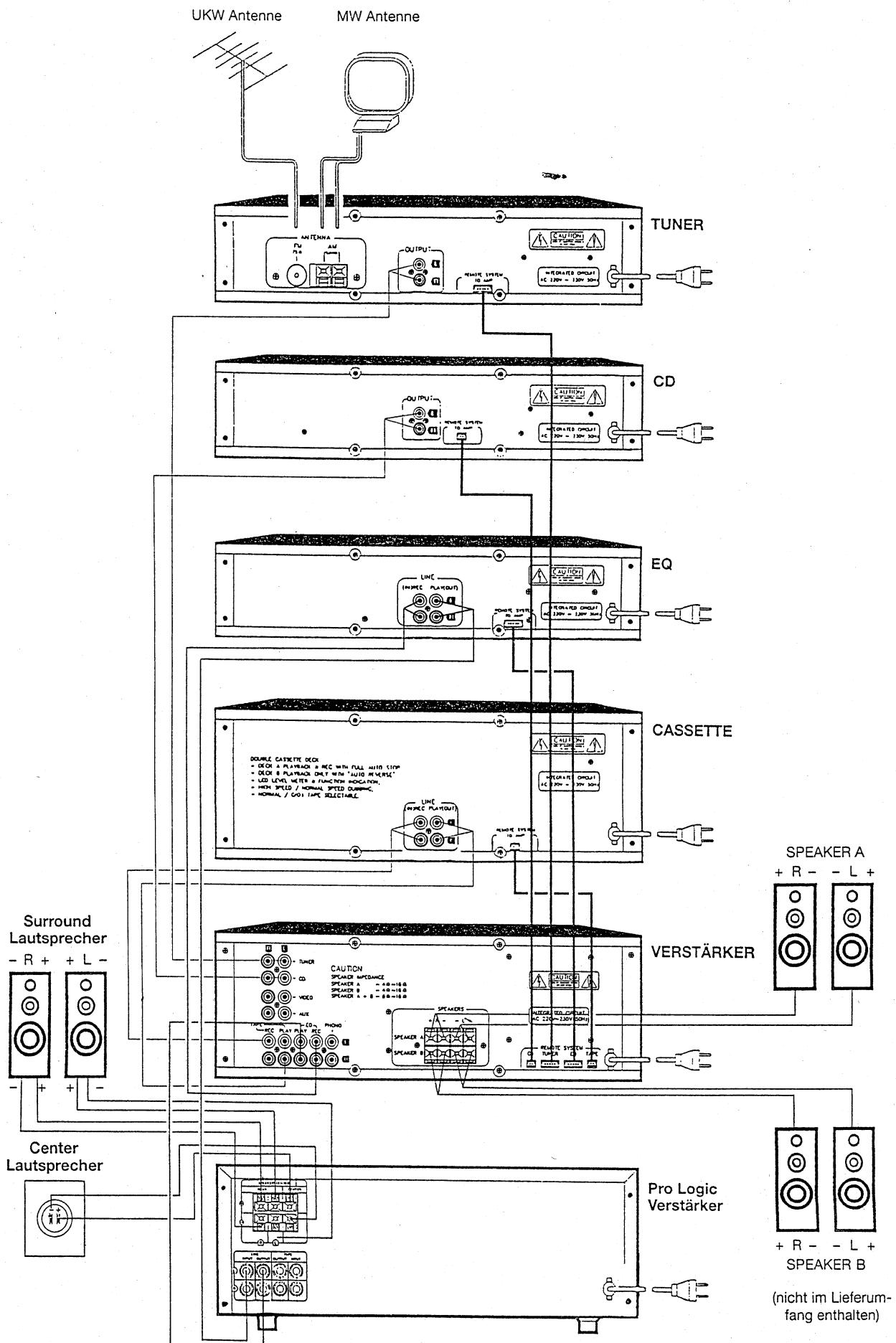
GKz: G GERAET
WGT: 659 KOMPLETTE STEREO-TUERME
KD-Sektor: R RUNDFUNK
BaumNr.: 00 KEIN DIAGNOSEBAUM VORHANDEN
Klassierung: STK STEREOKOMBINATION
IFW-FehlerGru.: 205 RDF.,VERST.,TB.,PHONO,CD,CB
Type/Privileg/Universum.Nr MODELL 3030
Beschreibung DOLBY-PROLOGIG
VK-Preis: 1498.00

Serviceart: 01 QUELLE-TKD
Garantie fuer Kunden 06 Monate
Sondervereinbarungen: 0 SIEHE SERVICEART

Garantiereparatur 9999999 QUELLE

KAT. 954 DATUM 19.12.95 SEITEN 6

Aufstell- und Anschlußmöglichkeiten für den kompletten
Dolby Logic - HiFi Baustein Turm Best.-Nr. 067.993



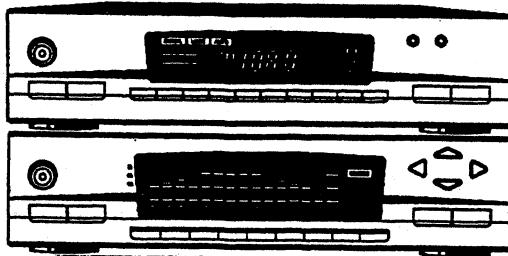
(nicht im Lieferumfang enthalten)



Technische Unterlage ERGÄNZUNG 3

Best.-Nr.:
067 993 6
067 994 4

2.AUSFÜHRUNG EQUALIZER TUNER



VTC-CD-155 (T/EQ/CD/C/V)

UTS-Nr.: 999 QUELLE
Best.Nr.: 0679936/01
Ger.Bez.: UNIV.STEREO-TURM

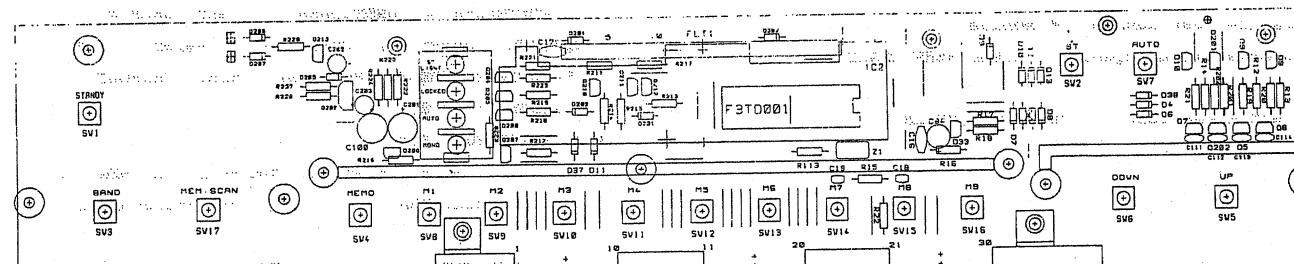
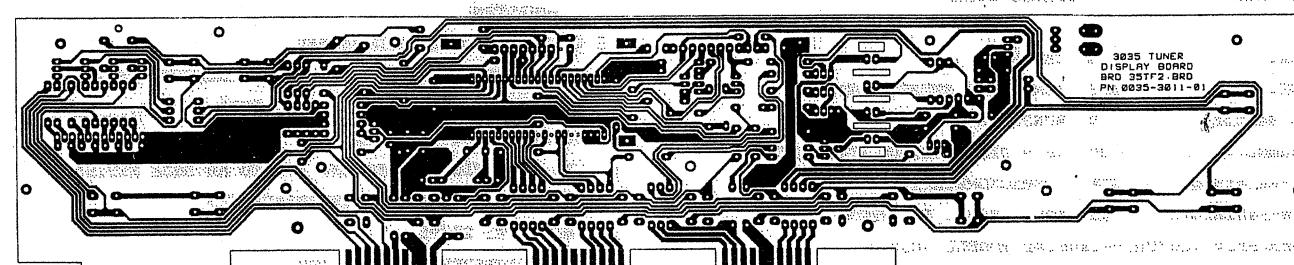
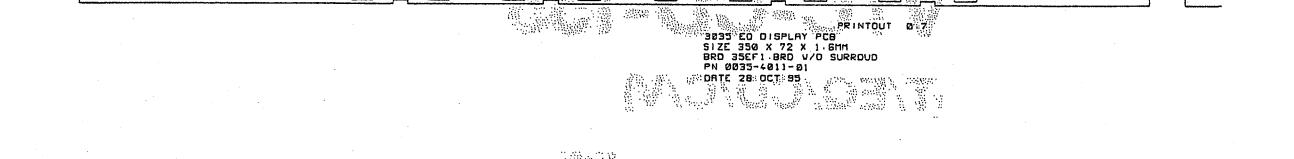
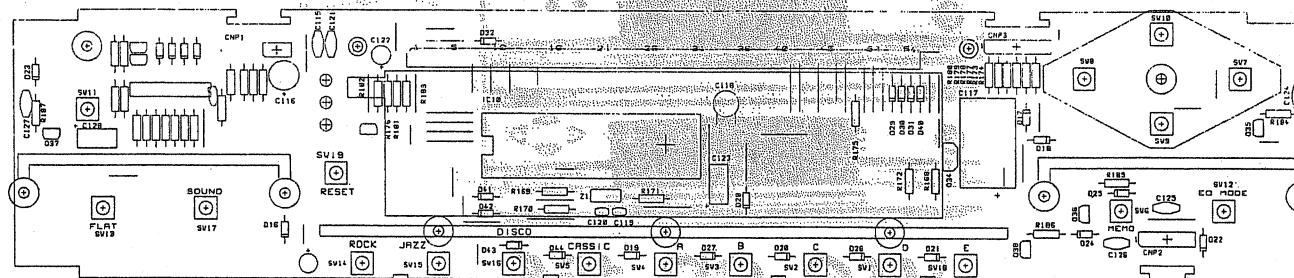
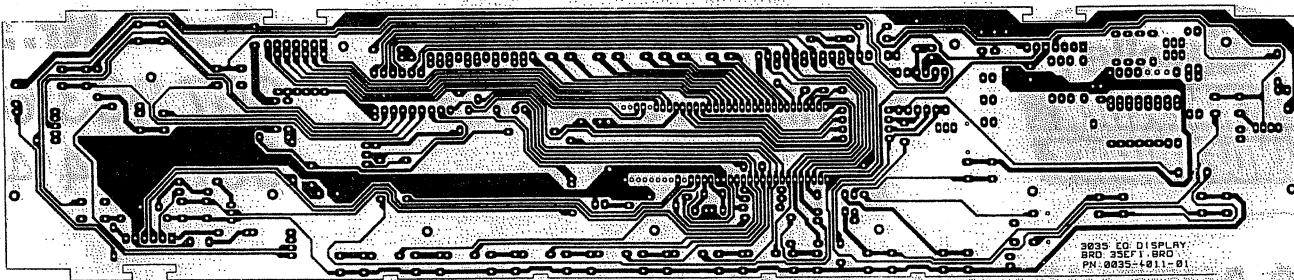
GKz: G GERAET
WGT: 659 KOMPLETTE STEREO-TUERME
KD-Sektor: R RUND FUNK
BaumNr.: 00 KEIN DIAGNOSEBAUM VORHAN DEN
Klassierung: STK STEREOKOMBINATION
IFW-FehlerGru.: 205 RDF., VERST., TB., PHONO, CD, CB
Type/Privileg/Universum.Nr MODELL 3030
Beschreibung DOLBY-PROLOGIC
VK-Preis: 1498.00

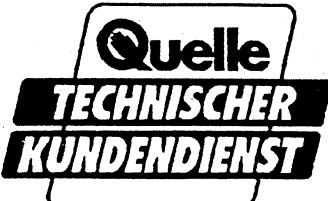
Serviceart: 01 QUELLE-TKD
Garantie fuer Kunden 06 Monate
Sondervereinbarungen: 0 SIEHE SERVICEART
Garantiereparatur 9999999 QUELLE

Fehler:

- 1 EQUALIZER KEINE ANZEIGE
A: DER EQ IST IM SIGNALWEG VOR DEN DOLBY-VERST.ZU SCHALTEN
- 2 SURROUND BOXEN KEIN SIGNAL
U: DIE DOLBY-MATRIX KANN KEIN HINTERGRUNDSIGNAL AUS EINEM MONO-SIGNAL (Z.B. RDF) BILDEN.
- 3 SCHALTPLAENE UNLESERLICH
ES GIBT EINE ERGAENZUNG ZUR TU AB ENDE SEP.95
- 4 ANSCHLUSS DES SURROUNDVERSTAERKERS
SIEHE TI 27/95
- 5 HAUPTLAUTSPRECHER KEIN TON
A: MONITORTASTE AM PROLOGIC-VERSTAERKER ENTRIEGELN
- 6 FUNKTIONSTOERUNGEN
BEI KOMPONENTEN DER ANLAGE KOENNEN SCHLECHTE LOETSTELLEN ZU FUNKTIONSTOERUNGEN FUEHREN.
- 7 GERAETE BRUMMEN BZW. DEFekt NACH VERBINDUNG SYS.FB
F: SYSTEMFERNBEDIENUNGSKABEL STECKER VERPOLT
SIEHE TI 40/95 !!!
- 8 EQ KEINE FUNKTION
F: K.F. DISPLAY ZEIGT VERSTUENNELTE ZEICHEN
U: KONDENSATOREN C119,C120 (30PF) FEINSCHLUSS
- 9 BEI TUNERBETRIEB KEINE BEDIENUNG MOEGLICH.
U: Q8/9/10/201 AUS TOLERANZ, BLOCKIEREN PROZESSOR
A: AUSTAUSCHEN

KAT. 954 DATUM 05.03.96 SEITEN 6





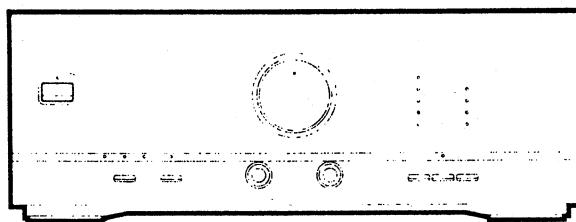
Technische Unterlage

Best.-Nr.:
105 792 6

universum. SERVICE
MANUAL

DPL-155

PROLOGIC AMPLIFIER



Best.Nr.: 1057926/01

Ger.Bez.: UNIV.VERSTAERKER

GKz: G GERAET

WGT: 653 STEREO-EINZELBAUST. BAUSTEINE-SET

KD-Sektor: R RUNDFUNK

BaumNr.: 00 KEIN DIAGNOSEBAUM VORHANDEN

Klassierung: STG STEREOG., TUNER, VERST., STEUERG

IFW-FehlerGru.: 205 RDF.,VERST.,TB.,PHONO,CD,CB

Type/Privileg/Universum.Nr V 3030

Beschreibung DOLBY-PROLOGIC

VK-Preis: 699.00

Serviceart: 01 QUELLE-TKD

Garantie fuer Kunden 06 Monate

Sondervereinbarungen: 0 SIEHE SERVICEART

Garantiereparatur 9999999 QUELLE

TECHNICAL SPECIFICATION

PREAMPLIFIER(When surround is "OFF")

Channel separation	70dB
Frequency Response	10Hz - 80kHz(-3dB)
S/N Ratio	80dB

AMPLIFIER

1. When surround is "ON"

• 1kHz continuous output	3ch > 35W(Balanced)
• T.H.D(1kHz/8ohm)	0.5%

2. When Dolby Prologic is "ON"

• Frequency Response	50Hz - 80kHz(-3dB)
Left, Right, Center	100Hz - 6kHz(-3dB)
• S/N Ratio [CCIR/ARM Filter]	
Left, Right, Center	75dB
Rear	70dB

GENERAL

Power Consumption	250W
Power Supply	AC230V, 50Hz
Dimension(W · H · D)	360 · 136 · 300mm
Weight	5.8Kg

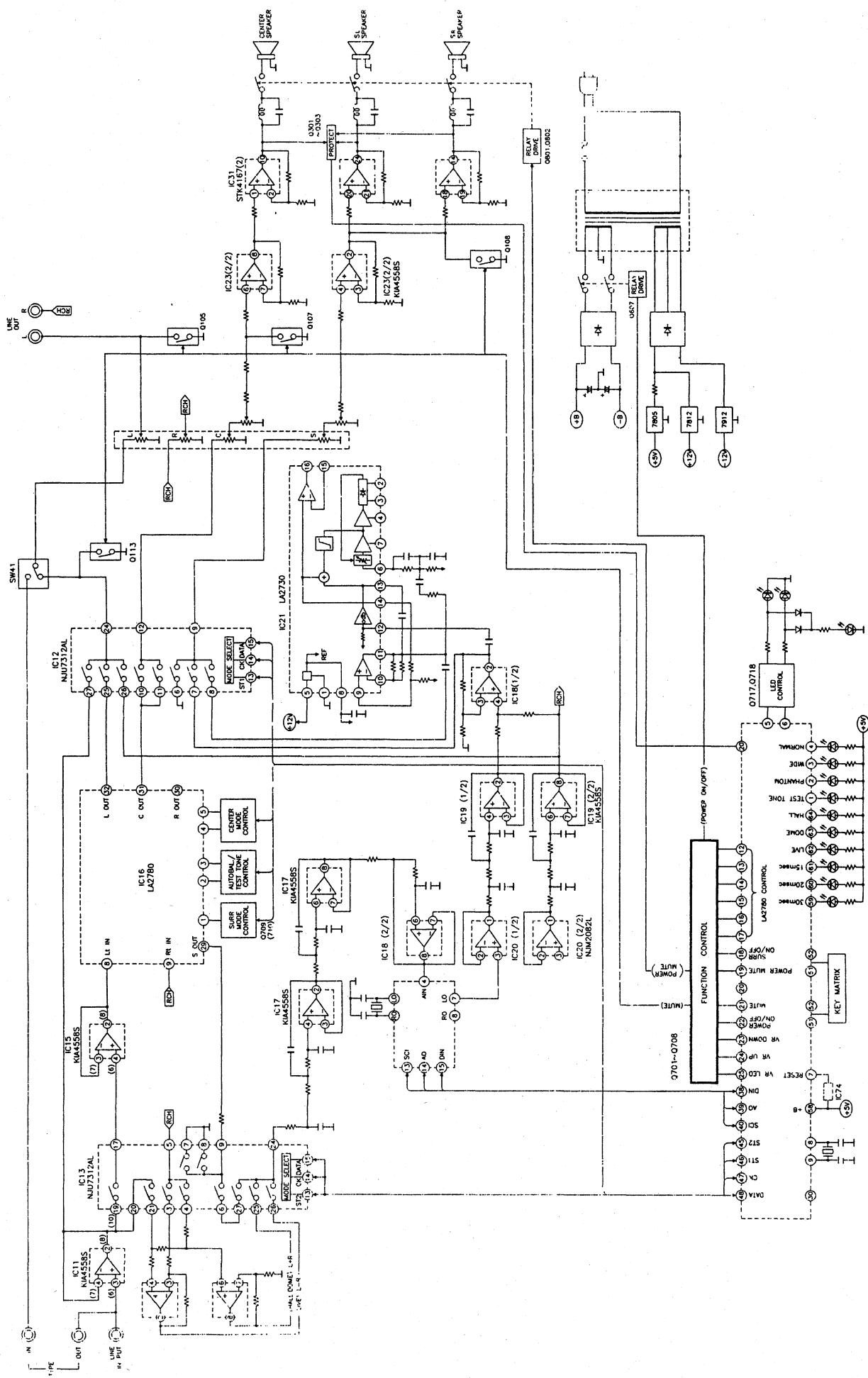
KAT. 954 DATUM 09.08.95 SEITEN 10

Quelle Schickedanz AG & Co.

Kundendienstzentraleitung Duisburger Str. 57, 90451 Nürnberg
Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten!

Nachdruck nicht gestattet
Änderungen vorbehalten

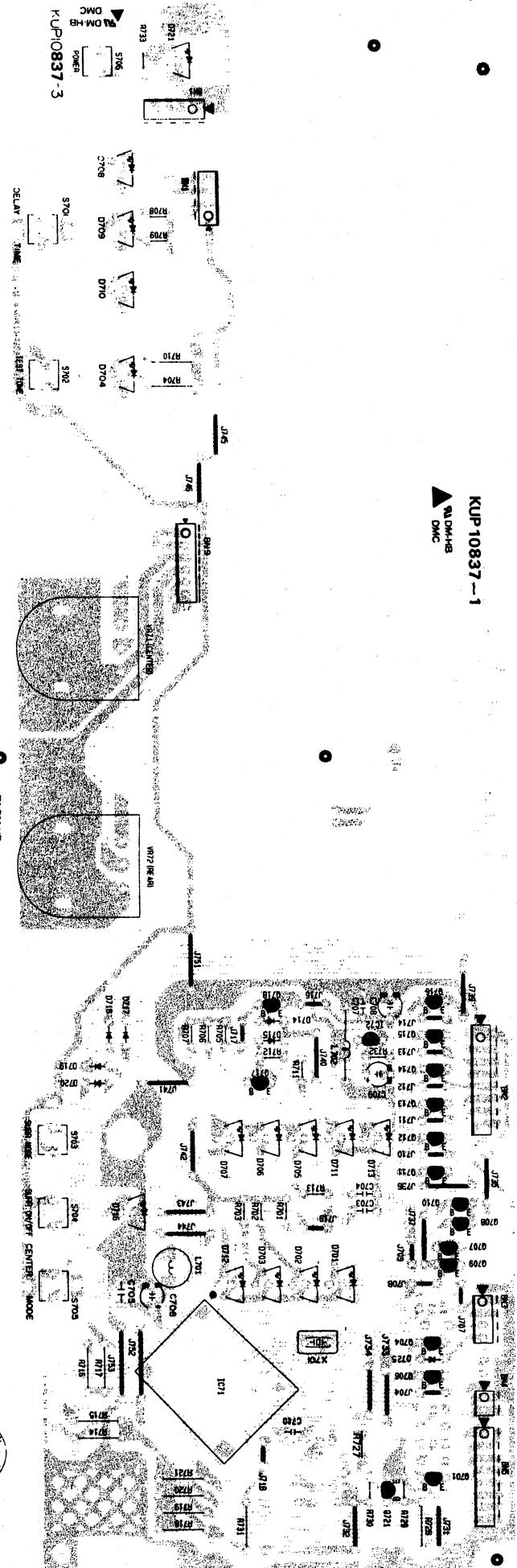
■ BLOCK DIAGRAM



© SUB PCB

KUP 10837-1

▶
DMC



KUP 10837

© BMH-HC DMC

◎VR PCB

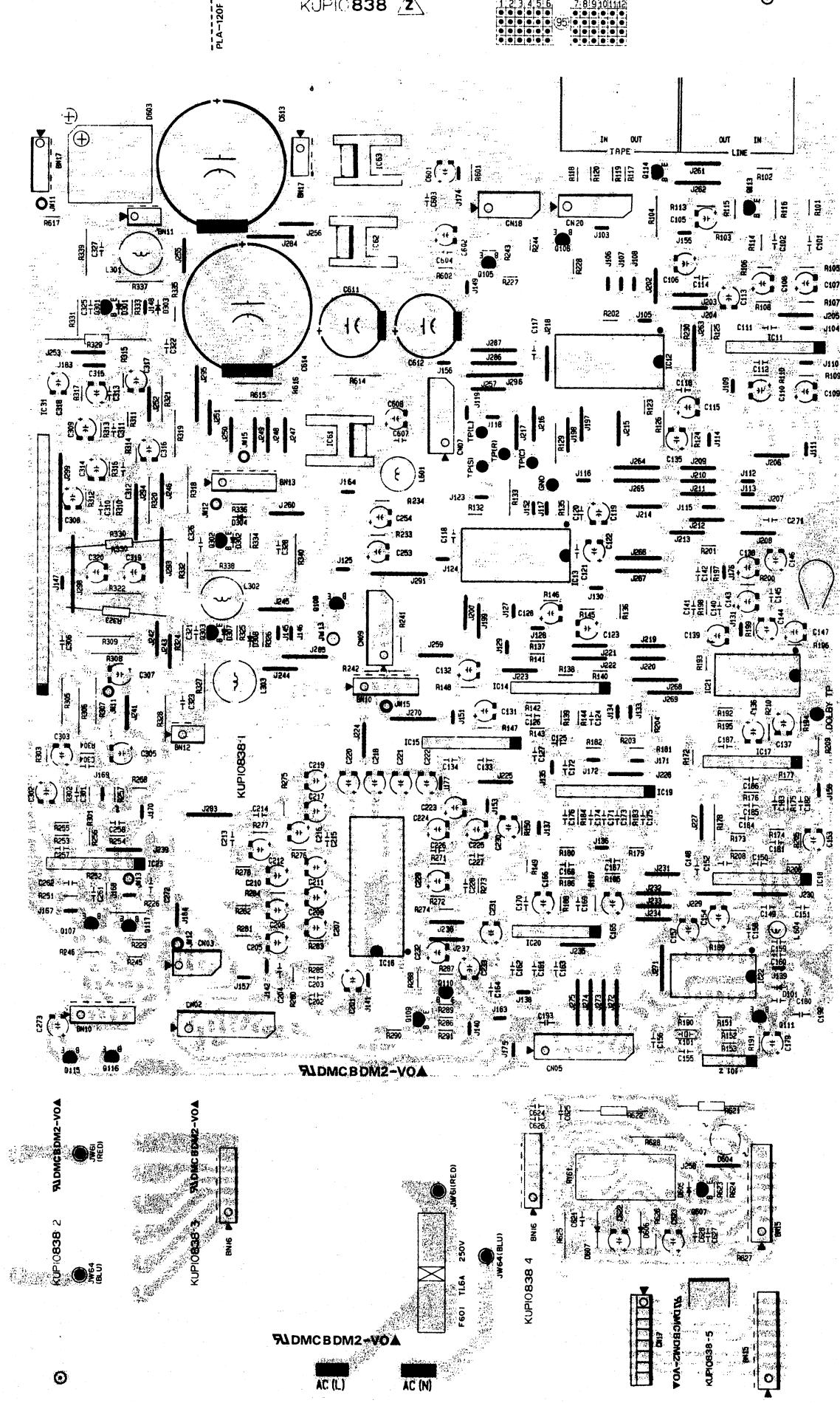
◎ SPEAKER PCB

卷之三

The schematic diagram shows the internal circuitry of the KUP-10P39 speaker PCB. It includes a power supply section with resistors R801 through R804, diodes D801 and D802, and capacitors C801 through C804. A central processing unit (CPU) is represented by a large rectangle labeled 'CPU'. Various components are interconnected with lines representing signal paths. A ground connection is shown at the bottom center.

■ PRINTED CIRCUIT BOARDS

○ MAIN PCB



ANAM 1063A(NEC:μ PD75104GF) μ

NO	SYMBOL	I/O	
1	P41	I/O	TEST TONE LED
2	P40	I/O	PHANTOM LED
3	P53	I/O	WIDE LED
4	P52	I/O	NORMAL LED
5	P51	I/O	3 STEREO LED
6	P50	I/O	PRO LOGIC LED
7	RESET	I/O	RESET
8	X2	O	X' TAL OSCILLATOR TERMINAL
9	X1	I	X' TAL OSCILLATOR TERMINAL
10	P63	I/O	
11	P62	I/O	
12	P61	I/O	
13	P60	I/O	
14	P73	I/O	LA 2780 IC CONTROL
15	P72	I/O	
16	P71	I/O	
17	P70	I/O	
18	P83	I/O	SURROUND ON/OFF
19	P82	I/O	POWER MUTE
20	P81	I/O	
21	P80	I/O	MUTE
22	P93	I/O	POWER ON/OFF
23	P92	I/O	
24	P91	I/O	
25	P90	I/O	VOLUME LED
26	Vss		GND
27	P13/INT3	I	
28	P12/INT2	I	
29	P11/INT1	I	PROTECTOR INPUT
30	P10/INT0	I	
31	PTH 03	I	
32	PTH 02	I	
33	PTH 01	I	
34	PTH 00	I	
35	T10	I	
36	T11	I	
37	P23	I/O	
38	P22/PCL	I/O	YM7128 CONTROL, DIN (DATA INPUT)
39	P21/PT01	I/O	YM7128 CONTROL, AO (Address INPUT)
40	P20/PT00	I/O	YM7128 CONTROL, SCI (DATA SHIFT CLOCK INPUT)
41	P03/SI	I	
42	P02/SO	I/O	
43	P01/SCK	I/O	
44	P00/INT4	I	
45	P123	I/O	NJU7312L CONTROL, STROBE 2
46	P122	I/O	NJU7312L CONTROL, STROBE 1
47	P121	I/O	NJU7312L CONTROL, CLOCK
48	P120	I/O	NJU7312L CONTROL, DATA
49	P133	I/O	
50	P132	I/O	
51	P131	I/O	KEY OUTPUT
52	P130	I/O	KEY OUTPUT
53	P143	I/O	KEY INPUT
54	P142	I/O	KEY INPUT
55	P141	I/O	KEY INPUT
56	P140	I/O	KEY INPUT
57	NC		
58	Vx		+5V POWER SUPPLY
59	P33	I/O	DELAY TIME LED (SHORT)
60	P32	I/O	DELAY TIME LED (MIDDLE)
61	P31	I/O	DELAY TIME LED (LONG)
62	P30	I/O	LIVE LED
63	P43	I/O	DOME LED
64	P42	I/O	HALL LED

LA2780(SANYO:DOLBY PRO LOGIC DECODER)
LA2780 PIN VOLTAGE

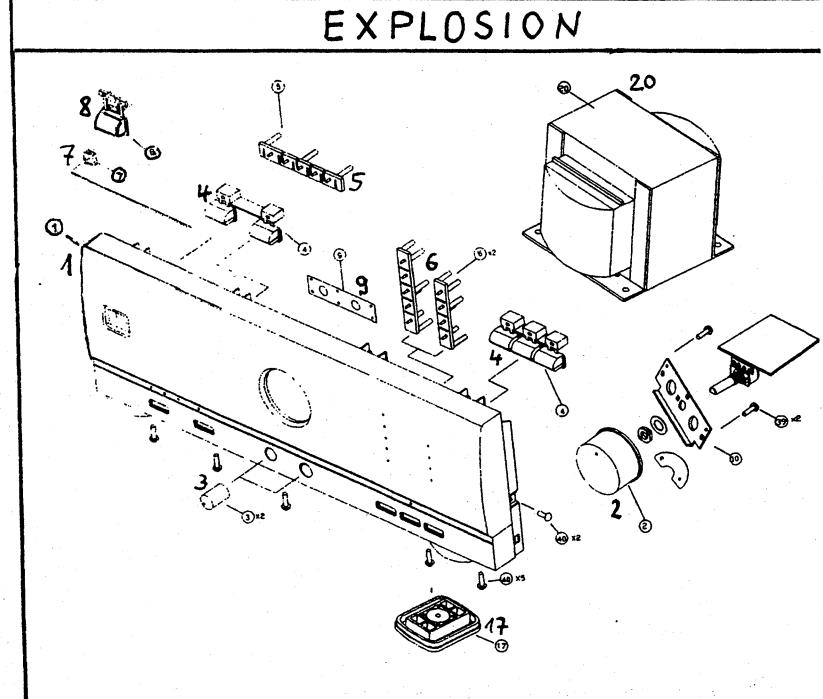
		TEST TONE	ON	PIN NO		
				Pin 1	Pin 2	Pin 3
DOLBY PROLOGIC			OFF	1/2 V _{cc}	H	H
				L	L	L ch
			ON	GND	H	L ch
					L	R ch
3 STEREO			OFF	V _{cc}	H	H
					L	L ch
			ON	GND	H	C ch
					L	R ch
OTHER SURROUND				1/2 V _{cc}	L	
SURROUND OFF					H	L

	CENTER MODE	Pin 4	Pin 5
		L	L
DOLBY PROLOGIC	NORMAL	L	L
	WIDE	L	H
3 STEREO	PHANTOM	H	L
	NORMAL	L	L
	WIDE	L	H

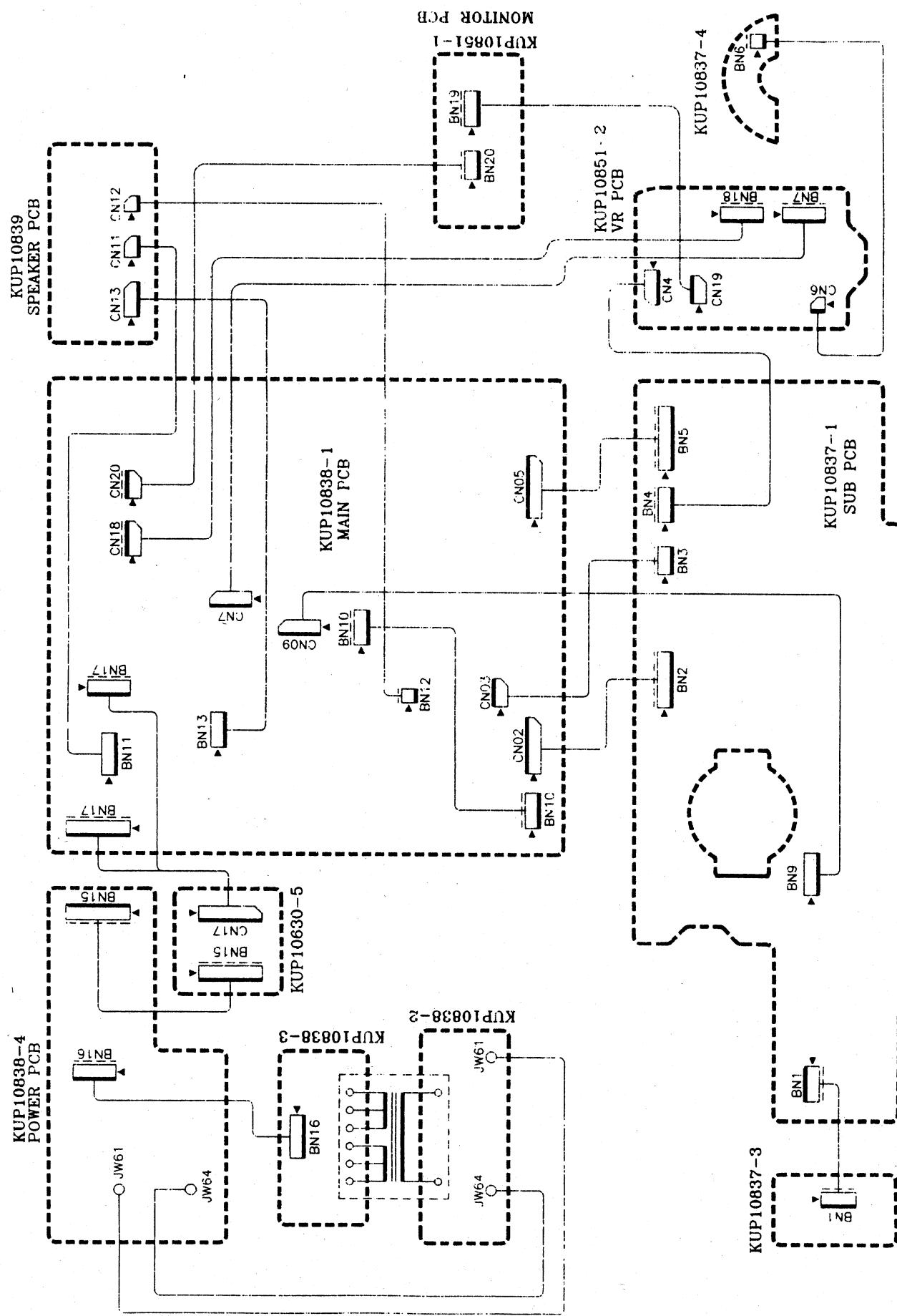
 V_{cc}=5V H=5V L=0V

YM7128B (YAMANA:DIGITAL DELAY)

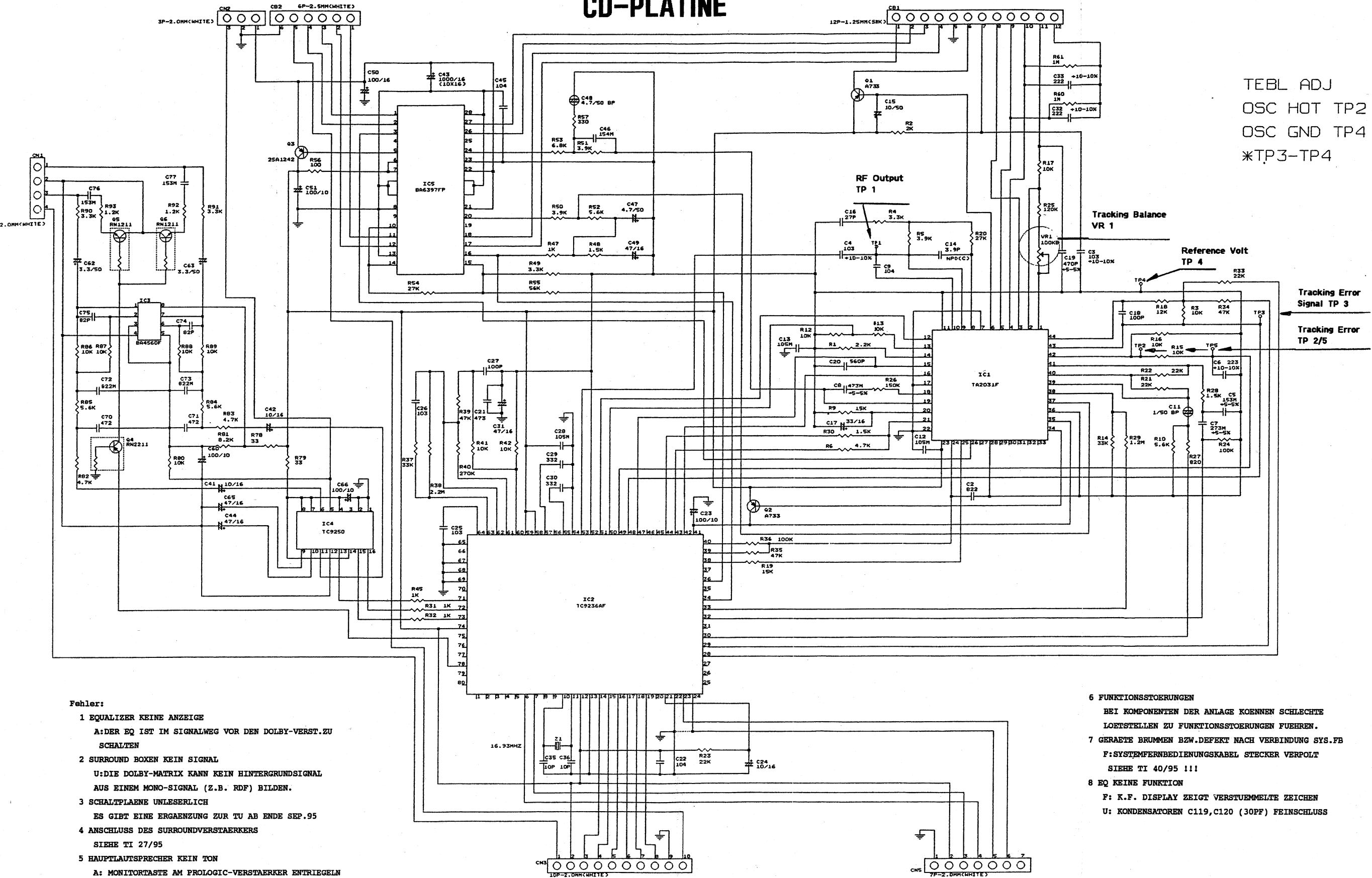
NO	SYMBOL	I/O	
1	V _{cc}		+5V POWER SUPPLY
2	AVin		+5V POWER SUPPLY
3	CH	O	SAMPLE/HOLD CAPACITOR TERMINAL
4	AIN	I	ANALOG SIGNAL INPUT TERMINAL
5	DV	O	REFERENCE VOLTAGE OUTPUT
6	/TI		
7	LO	O	L CHANNEL OUTPUT
8	RO	O	R CHANNEL OUTPUT
9	AV _{ss}		GND
10	V _{cc}		GND
11	XO	O	X' TAL OSCILLATOR TERMINAL
12	XI	I	X' TAL OSCILLATOR TERMINAL
13	SCI	I	DATA SHIFT CLOCK INPUT
14	AO	I	Address/data INPUT
15	DIN	I	DATA INPUT
16	/IC	I	Initial CLEAR

EXPLOSION


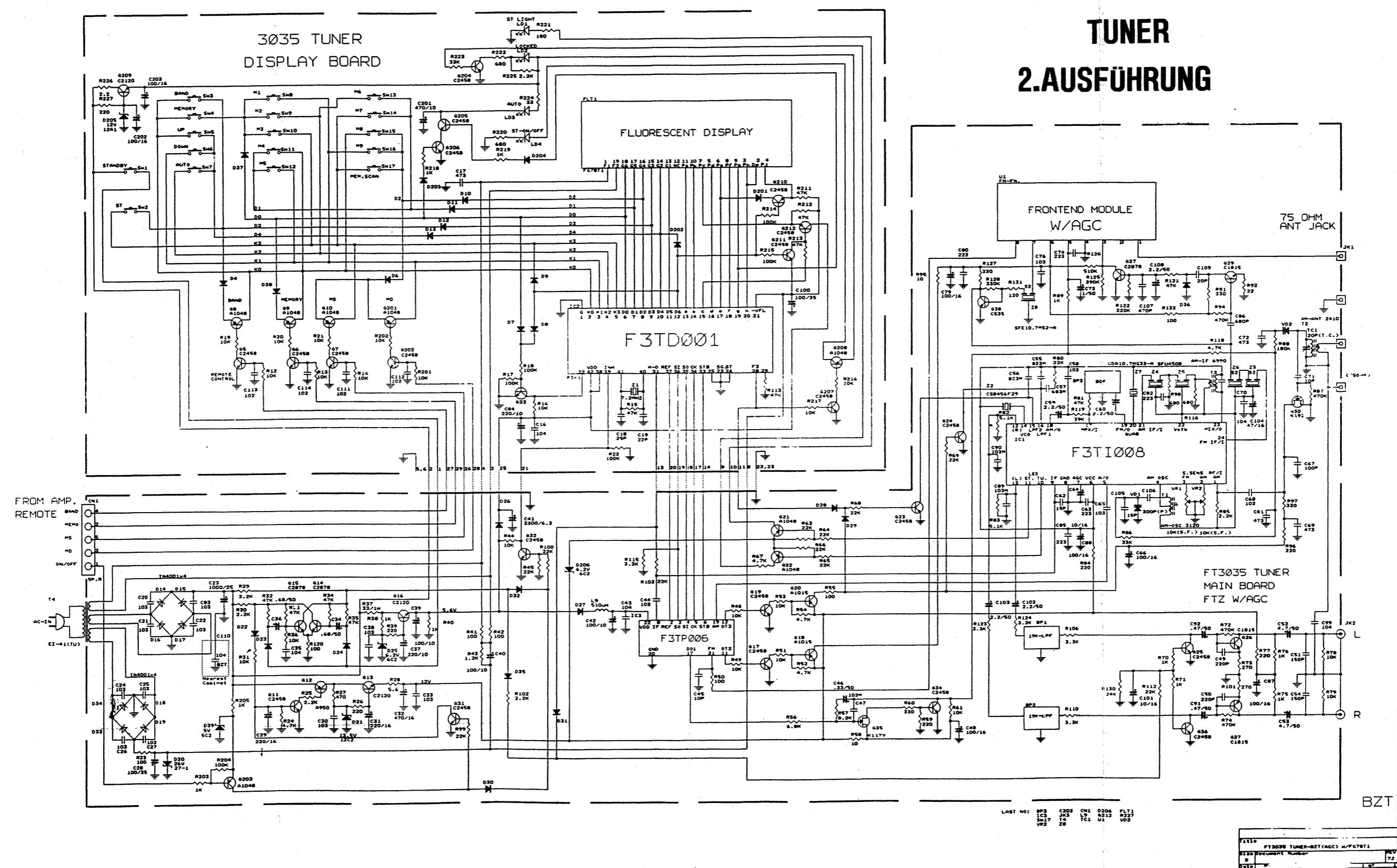
■ WIRING DIAGRAM

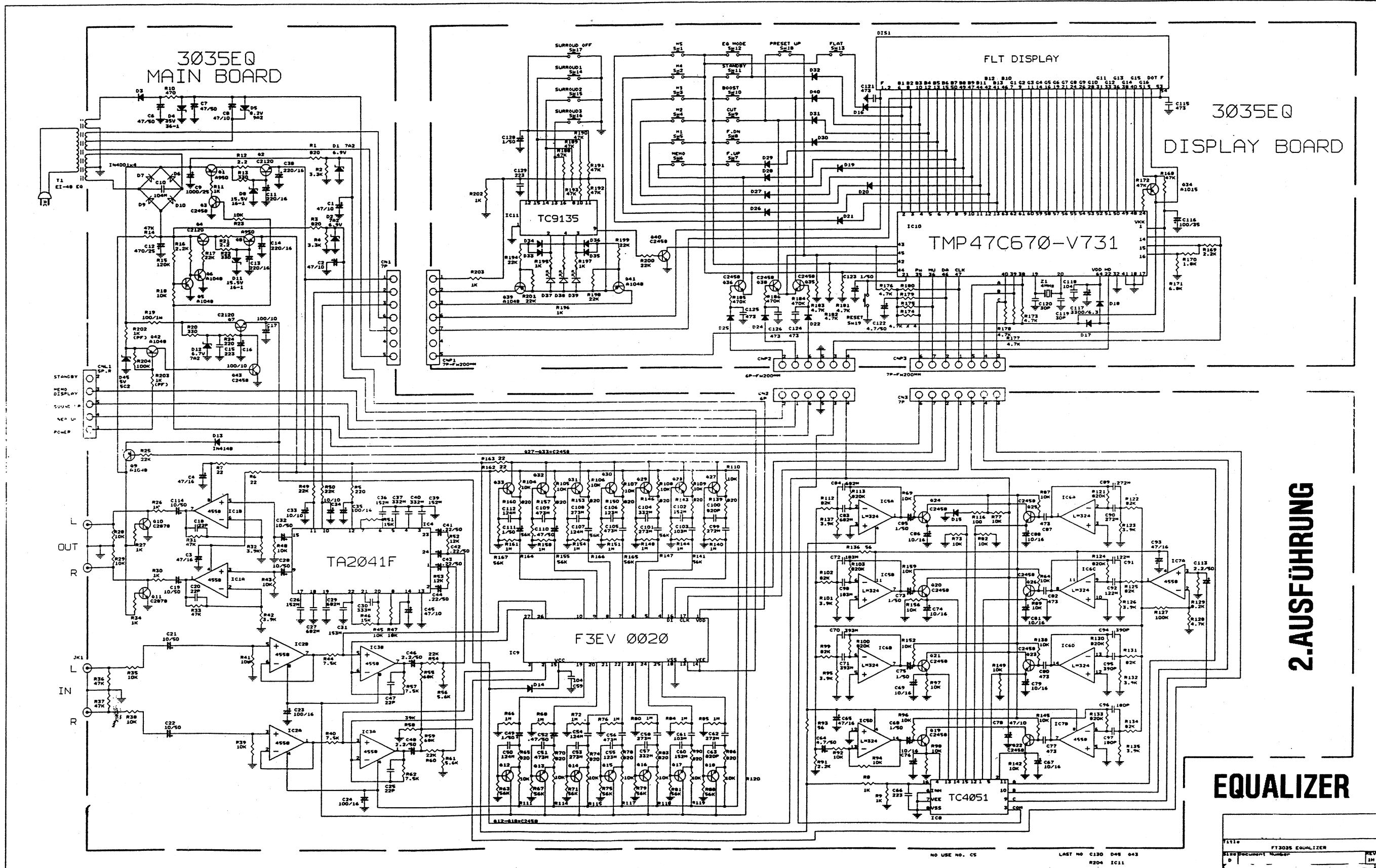


CD-PLATINE



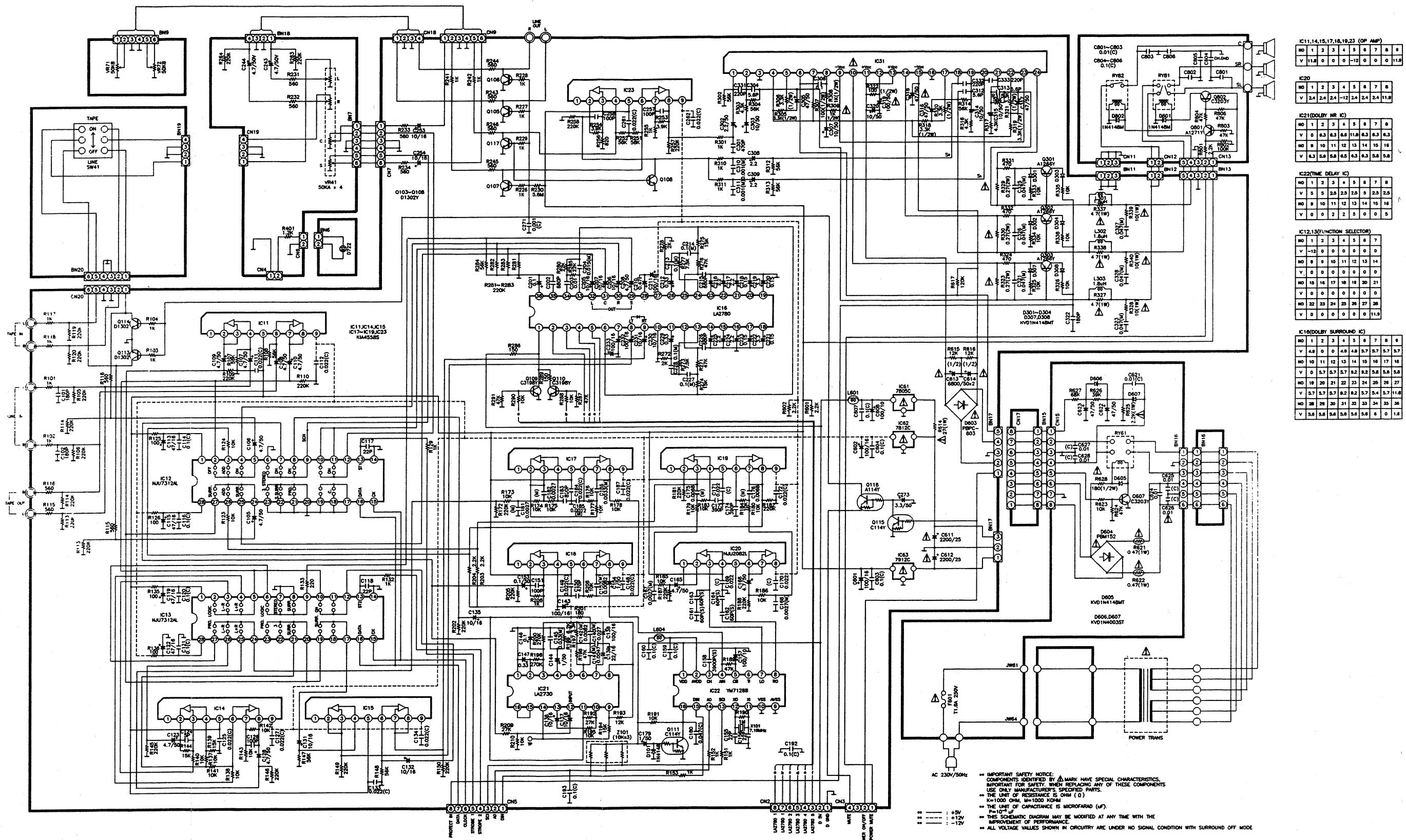
TUNER 2.AUSFÜHRUNG





■ SCHEMATIC DIAGRAM (MAIN)

Supply 4



■ SCHEMATIC DIAGRAM (SUB)

